SUPPLEMENT.

Inim Journal,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

[The MINING JOURNAL is Registered at the General Post Office as a Newspaper, and for Transmisseon Abroad.]

No. 2501.—Vol. LIII.

LONDON, SATURDAY, JULY 28, 1883.

PRICE (WITH THE JOURNAL) SIXPENCE BY POST £1 4s. PER ANNUM,

FIRST SILVER MEDAL, ROYAL CORNWALL POLYTECHNIC

—Highest Award for Effectiveness in Boring, and Economy in
the Consumption of Air. JUBILEE EXHIBITION, 1882.

THE PATENT "CORNISH" ROCK DRILL.



rices and particulars on application to the Manufacturers

HOLMAN BROTHERS, CAMBORNE FOUNDRY AND ENGINE WORKS, CAMBORNE, CORNWALL.

ENGINES, AIR COMPRESSORS, TUNNELLING CARRIAGES, TRIPODS, &c., From own design, or to order.

THE PATENT

"Cranston" Rock Drill, AIR COMPRESSOR,

Submarine Deep Boring Machinery.

FIRST SPECIAL AWARDS - BRONZE, SILVER, AND GOLD MEDALS-NEWCASTLE-ON-TYNE, 1874; PARIS, 1878; RIO-DE-JANEIRO, 1880.

For prices, and particulars of rapid, economical, and practical work accomplished, apply to—

J. G. CRANSTON, 22. Grey-street, Newcastle-on-Tyne.

"ECLIPSE" ROCK-DRILL "RELIANCE AIR-COMPRESSOR



PARIS EXHIBITION

1878.

ARE NOW SUPPLIED TO THE ENGLISH, FOREIGN, AND COLONIAL GOVERNMENTS LARGEST MINES. RAILWAYS, QUARRIES, AND HARBOUR WORKS IN GREAT BRITAIN AND ABROAD

FOR ILLUSTRATED CATALOGUE AND PRICES apply to-

AT WORK IN ALL PARTS OF THE WORLD.

SIMPLE, DURABLE,

EFFECTIVE

JORDAN'S (Patent)

ROCK

T. B. JORDAN, SON, and COMMANS, 52, Gracechurch St., London, E.C.

American Institute, 1872. American Institute, 1873. London International Exhibition, 1874. Manchester Scientific Sciety, 1875. Jeeds Exhibition, 1876. Royal Corawail Folytechnic, 1876.

LE GROS, MAYNE, LEAVER, & CO., 60, Queen Victoria Street, London, E.C.,

DUSSELDORF

For Catalogues of Rock Drills, Air Compressors, Steel or Iron Steam Tubes, Boiler Tubes, Perkins's Tubes, Pnuematic Tubes, Boring Tubes, and all kinds of Machinery and Mining Plant, apply—

60, QUEEN VICTORIA STREET, E.C.

BLAKE'S LATEST IMPROVED PATENT



STONE CRUSHERS. ALL STRAINS TAKEN BY WROUGHT IRON OR STEEL. DOES TWICE THE WORK OF OLD FORM.

SECTIONAL AND EASILY SHIPPED.

SOLE MANUFACTURERS

HATHORN & CO., 22, Charing Cross, London, S.W. OFFICES: 27, LEADENHALL ST., LONDON, E.C.

"Barrow" Rock Drill

HOSKING AND BLACKWELL'S PATENT.



Their DRILLS h ve most satisfactorily stood the TEST of LONG and CONTINUOUS WORK in the HARDEST KNOWN ROCK in numerous mines in Great Britain and other countries clearly proving their DURABILITY and POWER.

About 200 are now at work driving from three to six times the speed of hand labour, and at from 20 to 30 per cent. less cost per fathom. They can be worked by any miner.

For PRICES, Particulars and Reports of Successful and Economical Working, apply to-

> LOAM AND SON, LISKEARD, CORNWALL.

J. S. MERRY, ASSAYER AND ANALYTICAL CHEMIST, SWANSEA, SUPPLIES ASSAY OFFICE REQUIREMENTS AND RE-AGENTS. FIRST AWARD. SYDNEY. 1879.

PATENT FUSES BICKFORD'S

FIRST AWARD MELBOURNE, 1881.





























FOR SIMULTANEOU BLASTING.

BICKFORD, SMITH AND CO.,

THE INVENTORS, AND ORIGINAL PATENTEES AND MANUFACTURERS OF

AND INSTANTANEOUS FUSES AND IGNITERS

FOR USE IN ALL BLASTING OPERATIONS AND SPECIALLY PREPARED FOR ANY CLIMATE

Note the TRADE MARK: Two Separate threads through centre of Fuse.

BICKFORD, SMITH AND CO.'S Patent Igniters and Instantaneous Fuses for simultaneous blasting are being extensively used at home and abroad. This improved method is the cheapest, simplest, and most dependable ever introduced for simultaneously firing any number of charges. For full particulars, see

PRICE LISTS, DESCRIPTIVE CATALOGUES, AND SAMPLES TO BE HAD ON APPLICATION.

FACTORIES—TUCKINGMILL CORNWALL; AND ST. HELENS JUNCTION, LANCASHIRE.

HEAD OFFICE—TUCKINGMILL, CORNWALL.

LANCASHIRE OFFICE—ADELPHI BANK CHAMBERS, SOUTH JOHN STREET, LIVERPOOL

LONDON OFFICE—85, GRACECHURCH STREET, E.C.

Every package bears Bickford, Smith, and Co.'s copyright label.

MACDERMOTT AND GLOVER'S PATENT PERCUSSIVE ROCK PERFORATOR

(IMPROVED) FOR HAND-LABOUR ONLY, HARD ROCK.

FOR MINES, QUARRIES, AND GOVERNMENT CONTRACT WORK RATE OF PENETRATION IN GRANITE,

11 to 2 inches per minute.

Price £50 complete.

For full particulars, apply to GLOVER and Houses, Engineers and Millwrights, Albert Iron-works, St. James's-road, Old Kent-road, London, S.E., Sole Manufacturers; or to—

M. MACDERMOTT,

25 and 26, PUDDING LANE, LONDON, E.C. N.B.-A machine can always be seen at work (without notice) at

THE MANGANESE BRONZE & BRASS

COMPANY (LIMITED),

PARSONS' PATENT "MANGANESE BRONZE" AND PARSONS' WHITE BRASS.

MANGANESE BRONZE.

No 1.—In Ingots, Slahs, Forgings, Rolled Rods, Plates, Sheets, &c. Can be rolled and forged hot and rolled, drawn, and worked cold. Tensile strength—Annealed 30 tons, Cold Rolled and Drawn

40 to 50 tons per square inch.

No. 2.—In Ingots and Castings. Has double the strength of gun
metal. Is suitable for Propellers and other simple massive Castings where the greatest strength is required.

No. 3.—In Ingots and Castings. For strong castings of all kinds.

Is 50 per cent. stronger than gun metal, and can be cast with facility

in any form.

No. 4.—In Ingots and Castings. For all parts of Engines and Machines subjected to friction, especially such as work under heat. No 5.—Special Bearing Metal. In Ingots and Castings. Wears three times as long as gun metal. For all kinds of Bearings lubricated either with grease or oil.

PARSONS' WHITE BRASS.

No. 1.—In Ingots, Bearings, &c. Wears four or five times as long as gun metal. For Bearings, &c., of moderate size, lubricated with

No. 2.—For Filling. In Ingots. For filling Main Bearings, Crank Pin Brasses, Thrust and Side Blocks of Marine Engines and Bearings of Land and Locamotive Engines. Is used by nearly all the principa Steamship Companies and Engineers. Experience proves it to be superior in every respect to all other White Metals. For further particulars and prices, apply to-

P. R. PARSONS, Manager LOMBARD STREET, SOUTHWARK, LONDON, S.E.

ESTABLISHED NEARLY FIFTY YEARS

THE MINING JOURNAL,

BAILWAY AND COMMERCIAL GAZETTE,

WIDEST CIRCULATION
Amongst
MINERS, METALLURGISTS, ENGINEERS,

FINANCIAL AND COMMERCIAL MEN

THROUGHOUT THE GLOBE.

PRICE SIXPENCE WEEKLY. SUBSCRIPTION:

.. £1 4 0 per annum,

LONDON:

MINING JOURNAL OFFICE, 26, FLEET STREET AND TO BE HAD ON ALL BOOKSELLERS AND NEWSAGENTS.

ESTABLISHED 1852.

SYBRY, SEARLS, AND CO.,

CELEBRATED MINING STEEL, BRANDED

Cast Steel, Shear, Blister, Spring, Hammer, and Pick Steel. Special Rock Drill Steel.

Mining Tools, Files, Saws, Hammers, and Picks.

CANNON STEEL WORKS, SHEFFIELD.

The Only Knapping Motion Stone Breaker

AWARDED THE ONLY SILVER MEDAL FOR MECHANICAL EXHIBITS AT THE ROYAL CORNWALL POLYTECHNIC SOCIETY, FALMOUTH, SEPT., 1881.

UARANTEED to do MORE WORK with less power THAN ANY OTHER MACHINE in the World. NOTE THIS FACT.

To Mr. Baxter, Leeds.

DEAR SIR,—I am pleased to be able to tell you that the Machine works splendidly. We are breaking 16 trucks a day now and we thought it a good day's work to do 10 a day with the o,ld Machine, so you can see the difference. I had a gentleman looking at it yesterday, and he was surprised to see it work so easily.

Yours truly,

E. ORGAN. Yours truly, E. ORGAN.

The above refers to one of our 16 by 9 Machines we supplied to replace an "Improved Blake" 15 by 9 Machine.



GUARANTEED NO INFRINGEMENT OF ANY OTHER PATENT

AWARDED THE ROYAL MANCHESTER, LIVERPOOL, AND NORTH LANCASHIRE AGRICULTURAL SOCIETY'S SILVER MEDAL, 8TH OF SEPTEMBER, 1882.

FOR ILLUSTRATED CATALOGUE AND FULL PARTICULARS ADDRESS TO THE PATENTEES AND SOLE MAKERS,

W. H. BAXTER & CO., ALBION STREET, LEEDS, Will EXHIBIT at the ENGINEERING EXHIBITION at the AGRICULTURAL HALL, LONDON, in JULY, 1883.

British and Foreign Safety Fuse Company,



REDRUTH, CORNWALL,

FETY FUSE,

FOR MINING AND QUARRYING PURPOSES.

RICES ON

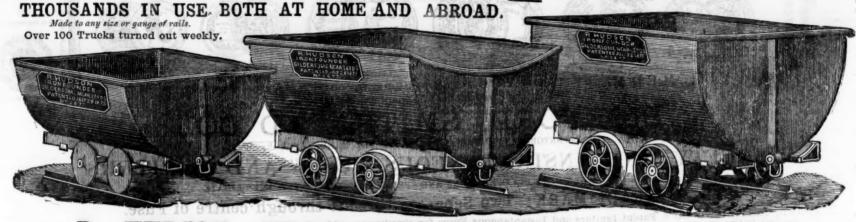
MARK THE

R. HUDSON'S PATENT STEEL (OR TRUCKS

LIGHTEST, STRONGEST, AND MOST CAPACIOUS MADE.

PATENTED EUROPE, AMERICA, AND BRITISH SOUTH AFRICA, No. 2677, No. 50 No. 3782 No. 102 No. 1681, AND No. 4683 WITH OR WITHOUT "END" DOORS AND "SWIVELLING" UNDERCARRIAGE FOR

TIPPING AT EITHER SIDE OR END OF RAILS.



R. HUDSON, GILDERSOME FOUNDRY, NEAR LEEDS

BELL'S ASBESTOS.

BELL'S PURE ASBESTOS PLAITED YARN PACKING.

This is the best and most economical Piston Packing in the market for High and Low Pressure Stationary Engines. Of course there are many worthless imitations of a Packing so universally approved of, but I am the Original Maker and Sole Manufacturer of the genuine article, as used in the British and German Navies. To avoid imposition, users should require to see my Trade Mark, which is on every 10 ft. length of the Packing made by me, and without this none is genuine.

The following Testimonials refers to this Pack-

The following Testimonials refers to this Packng:

— Sowage Works, Winchester, Jan. 12, 1853.

Mr. J. Bell, Asbestos Works, London.

DEAR Sir,—I have great pleasure in saying that the Asbestos Packing I had from you is the best I have ever used, though I have used other Asbestos Packings not of your make. As an example, one of my piston rod glands was packed with it, and has been working night and day since October 26 without re-packing. I have not been able to run so long with any other make.

Iam, Sir, yours truly, J. ASHCROFT, Chief Engineer.

Mr. John Bell, Asbestos Works, London. Portsmouth, February 20, 1833.

Sir,—Your Asbestos Steam Packing that you have been supplying for some sonsiderable time I can recommend to steam users generally as being the very best that was ever introduced into the market for piston glands, slide throttle and throttle valve glands. I can after considerable experience say that it is the very best that I have ever used. We run our engine at between 80 and 90 revolutions per minute, and I may add that there is no work more trying than saw your struly. WM. HATCHER, Engineer at Bailey's Steam Saw Mills, Portsmouth.

REI I 'S ASRESTORS FETTO

BELL'S ASBESTOS FELT.

A cheap material to be placed between ceiling and upper floor, to prevent spread of fire.

BELL'S ASBESTOS AND HAIR FELT COVERING,

For Hot Water and Steam Pipes, to Prevent Radiation and Ensure Transmission of Heat; also to Protect from Frost.

BELL'S ASBESTOS BOILER COVER

ING COMPOSITION,

For Coating the Boilers of every kind of Marine and Stationary Engine.

It is non-combustible, and can be easily and quickly applied at any time whether steam is up or not. It adheres to iron and metals and preserves them from rust.

them from rust.

The Maxim Weston Electric Company (Limited), 29, Bankside,
London, S.E., 4th January, 1882.

Mr. John Bell, 118, Southwark Street, S.E.
DEAR SIR,—In answer to your request, I beg to inform you that I find the thermometer placed 3 feet above the boilers now stands at 93°; before your covering was put on it used to stand at 128°. With regard to the saving in fuel I am unable to speak very accurately, as the boilers were not working long enough before being covered to accertain the amount of fuel that would be consumed in an ordinary run; but I feel quite justified in saying that we burn less by about 5 cwts, per night than we were doing, and I shall be glad at any time to show the boilers to any one who may wish to see them, as I consider yours the lest covering that I have up to the present seen.

Yours faithfully, (Signed) J. H. CUNDALL, Works Manager.

BELL'S ASBESTOS BLOCKS & LUMPS

BELL'S PURE CLOSELY WOVEN

RUBBER WOVEN TAPE,

RUBBER WOVEN TAPE,

It has been found very efficient for making bilge-pipe joints. It can be bent by hand, without puckering, to the form required, and is especially useful in making manhole and mudhole doors; also for large, "still" joints where boiling fat and acids of a lkinds have to be resisted. For those latter purpose it is kept in
rolls of 100 feet, in various widths from 1 inch
to 2½ inches wide, by ½ inch to ½ inch thick,
Manhole cover joints made of this material can
be lifted 20 times before renewal is necessary.
This Tape is also made in any width and thick,
ness, so that it is suitable for every class of joint.
It is also made in sheets about 40 inches square,
from ½6 inch thick upwards, and each sheet
hears my Trade Mark to protect users against
bears my Trade Mark to protect users against
to prevent imposition by worlheless imitations.

The engineer of a world-renowned firm writes:—"There is not, now can those

The engineer of a world-renowned firm writes:—"There is not, nor can there be, any doubt as to the excellence of your Asbestos and Indiarubber Woven Sheeting—as a jointing material it is unrivalled."

The engineer of a large colliery writes:—"I would in all candour say that your Asbestos and Indiarubber Woven Sheeting is first-rate for joints. In my 25 years' experience I have not seen anything like it. I highly recommend it to all those who have to do with steam engines."

BELL'S ASBESTOS YARN AND SOAP-STONE PACKING,

For Locomotive Engines, Cranes, &c.
The following Testimonial refers to this packing;—
Festining Railway, Locomotive Superintendent's Office,
Portmadoc, Jan. 13th, 1883.
Mr. John Bell, 118, Southwark-street, S.E.

Mr. John Bell, 118, Southwark-street, 8, E.

DEAR Sir,—I have much pleasure in saying that the Asbestos Yarn and Soapstone Packing gives every satisfaction; indeed, better than we expected. We
have a locomotive packed with it, and has been running five months (and think
of the piston speed with our small wheels). I think the Soapatone a great improvement, as it keeps the packing elastic, and prevents it getting hard. I arr,
very pleased with its working, and also the very low price for such good lasting
packing. The Asbestos Yarn we find is very useful, and answers admirably.

(Signed) Yours truly, W. WILLIAMS. eful, and answers admirably.

W. WILLIAMS.

BELL'S ASBESTOS ROLLED CLOTH

For Marine Engines. Every 10 feet length of the above Packings habel attached bearing my Trade Mark, without which none is genuine. To illowing Testimonial refers to the Asbestos Cloth Packing:—
8.8. "NORFOLK," S.W. India Docks, London, February 28th, 1882.

S.S. "NORFOLK," S.W. India Doors, London, respectively.

John Bell, Esq.

Sir.—I have great pleasure in reporting on your Asbestos Cloth Rope Packing which you sent me on trial. I tried it in one of two H.P. Piston Rods, and it ran 30 days without repacking. The other H.P. Piston Rod was packed with a similar form of packing, not composed of Asbestos, and was repacked 10 times during the 30 days. I have recommended it both at Sydney and Melbourne, and shall do my best to take this packing in whatever steamers I may have to do with.

W. W.PROPHET, Chief Engineer S.S. "NORFOLK."

BELL'S SPECIAL LONDON - MADE ASBESTOS MILLBOARD,

undermentioned addresses, or to write for particulars. ILLUSTRATED PRICED CATALOGUE ON APPLICATION TO

JOHN BELL, ASBESTOS WORKS, 118, SOUTHWARK STREET, LONDON;

OR THE BRANCH WAREHOUSES-VICTORIA BUILDINGS, DEANSGATE, MANCHESTER; 11 AND 13, ST. VINCENT PLACE, GLASGOW; 21, RITTER STRASSE, BERLIN.

SILVER MEDAL (HIGHEST AWARD) MELBOURNE, 1881.

JOHN SPENCER, Globe Tube Works, WEDNESBURY,

Globe Tube Works, WEDINGS DOKE,
AND 3, QUEEN STREET PLACE, CANNON STREET, LONDON, E.C.
FIRST PRIZE, SYDNEY, 1830.
TUBES AND FITTINGS for Gas, Steam, and Water; Galvanised, Enamelled, and Hydrauli Tubes; Beiler
Tubes and Fittings; Gas Fitters' Tools; Brass Cocks, &c.
ANTI-CORRODO TUBES AND FITTINGS COATED BY BARFF'S RUSTLASS PROCESS.

ASBESTOS.

ASBESTOS FIRE AND ACID-RESISTING PAINT, ASBESTOS ENGINE PACKING,

SBESTOS MILLBOARD JOINTING

SBESTOS BOILER COVERING

SBESTOS CEMENT,

ARE UNRIVALLED.

Price Lists and all information from the UNITED ASBESTOS COMPAN LIMITED):—

HEAD OFFICES:-161, QUEEN VICTORIA STREET, LONDON, WORKS :- ROME, TURIN, AND GLASGOW.



GAUZE MANUFACTORY, Honourable Mention, Paris Exhibition, 1878.

MIDLAND DAVY LAMP WORKS

Belmont Passage, 203, Lawley-street,

BIRMINGHAM.

Makers of Williamson's Double Safety Lamp, Williamson's Patent Double Safety Lamp shown half in

Medal - For Improved Invention-London, Kensington, 1874. Ditto-Excellence of Workmanship-Wrexham 1867

WM. BREDEMEYER,

W MI. BEEDEMEY ER.
MINING, CONSULTING, AND CIVIL ENGINEER,
48, SECOND SOUTH STREET,
United States Mineral Surveyor for Utah and Idaho, Notary Public, Goological Examinations, Reports on Mining Properties; Surveys Mines, Railroads, and Canals, and Superintends the Workings of the same. Prepares Estimates and Plans for Opening and Working Mines. Expert on Mining Questions before the Courts.

Address, P. O. Box, 1157, Salt Lake City, Utah.

J. A. JONES, MINING ENGINEER,

GIJON (ASTURIAS), SPAIN.

Mines inspected and reported on. Assays and valuations effected.

Has on hand offers of Mines of Copper, Calamine, Blende, Phosphate
of Lime, Tin, Lead, Iron, Manganese. and Manganiferous
Iron Ores.

MONEY LENT, at EIGHT, NINE, and TEN PER CENT., on FIRST MORTGAGE of FREEHOLDS for IMPROVEMENTS and STOOKING, said freeholds in the Province of MANITOBA.

Address, HERBERT C. JONES, Solicitor, 20, Masonic Hall, Toronto.

FOR GAS FIRES.

BELL'S PURE CLOSELY WOVEN
ASBESTOS CLOTH,
For Protection against Fire.

BELL'S ASBESTOS CORDAGE,
For Fire Escapes and Window 8ash Lines, &c.

Foreman Engineers and others in charge of Machinery are invited to inspect BELL'S ASBESTOS GOODS at any of the addresses, or to write for particulars.

HABBESTOS WITHERDOARD.

For Dry 8team Joints, Electric Dynamo Machines, &c. imade in sheets measuring about 40 inches equare, from 1-64th inch to 1 inch, and ½ millimetre to 25 millimetres thick. Each sheet bears my Trade Mark, without thoughtless invostment of money in English companies for working transval gold mines, published in the Times of Saturday, another correspondent replies: "I hope you will allow me, as one deeply interested in South Africa, to say a few words. I perfectly agree that it is not desirable to raise a large capital to work the gold mines in the Transval at first. In reply to the query, 'If the country is as rich as represented, why have not some of the mines been opened and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies, and their returns and worked by private owners and companies. erich as represented, why have not some of the mines been opened and worked by private owners and companies, and their returns made known?—the mines in the Transvaal are not 'poor men's diggings,' but require machinery, just as the bulk of the mines in Australia and America do. As to their richness, the reports of Messrs. Hamilton and Webster (from Messrs. Rickards and Co.) and Mr. Stuart, sent out by the South African Syndicate, and of Mr. Dunn, by the Pilgrim's Rest Syndicate, state that these mines are extraordinarily rich. These men's bread depends on their reputation for truth, and if their reports are false it is gone. These reports can be supported or contradicted by numerous reliable witnesses now at home, among whom are Sir Owen Lanyon, Sir Bartle Frere, Sir T. Shepstone, Mr. Jorissen (lately Attorney-General, Transvaal), Sir Morison Barlow, Mr. J. Henderson (Chairman of the Natal Bank), Mr. A. Walker (one of the principal surveyors of the Transvaal), Mr. P. Whitehead, &c. The addresses of these gentlemen are known to all acquainted with the Transvaal. Several hundred thousand pounds sterling of gold have been exported already from these mines, even as worked without machinery, as can be ascertained by reference to the banks, and much more by private hands. I am surprised that your correspondent should not know that the bulk of the gold in America and Australia is got out by companies. The importance to the peace and welfare of South Africa of the opening of these mines cannot be exaggerated, and as they extend hundreds of miles to the north the civilisation of a vast tract of country is involved."

Original Correspondence.

THE SUEZ CANAL.

SIR,—It was a foregone conclusion with me as to the result of the debate on Monday evening on this anxious and embarrassing question to the fainthearted, Lord Derby to wit, from the moment it was first mooted that the present Cabinet on their own responsibility had entered an agreement with M. de Lesseps to lend him 8,000,000L, at the rate of 3½ per cent., to construct a second canal, and acknowledge his right to a conclusive monopoly of the Isthmus, as the legal advisers of the Crown considered they had this right. Messrs, Horace Davey and Emmanuel M. Underdown, gentlemen noted, high-sounding titles, as the present legal advisers of the Crown, are amongst the most eminent on the bar, state their opinion on the question. "We are also of opinion that the only privilege accorded to the company are those mentioned in the Cahier des Charges, in which no exclusive privilege is mentioned, and that in virtue of the documents laid before us the company possesses no exclusive privilege to construct, or maintain, or work a canal between the two seas." What need we more than this? The intellect of the "pirates" is still sufficiently bright to understand this language. That we have a locus standi to the unoccupied portion of the canal is beyond question, and the combustible nature of M. de Lesseps and French journalists will not deter us from keeping it. No sensible-minded Englishman wishes to pick a quarrel with France, our old and respected ally, or with any other nation; but our rights must be maintained.

M. de Lesseps is, according to his own idea, intending to construct a second canal across the Isthmus of Suez, with or without our assistance. After the blood we have shed, the money we have paid, and are still paying, to protect the canal, not only for ourselves, but for every other nation, it yet remains to be seen if that enterprising hot-headed Frenchman is going to carry out that idea without the co-operation or intervention of John Bull.

W. NINESS. Porramporth, July 24.

THE TRANSVAAL GOLD FIELDS.

SIR,—The exceedingly flattering reports which have been from time to time published with regard to the immense mineral wealth of the Transvaal has raised the not unnatural question as to the reason for the non-application of a portion of the returns to the purchase of the necessary machinery for its further development, and an interesting discussion has been going on in the Times, which is well worthy the attention of British capitalists generally. One correspondent writes that—" It is well that a word of caution should be raised against an indiscriminate rush being made upon the supposed gold mines of the Transvaal. If the country is as rich as represented, why have not some of the mines been opened and worked by private owners and companies and their returns made known? That gold is distributed over a large section of country, and in many places may be rich, is quite possible; but that of itself is not enough to warrant the raising of huge capitals to produce gold which is said to lie so near the surface. The opening of the gold fields of California and Australia was done by private enterprise, mostly by the manual labour of miners working on their own account. In 10 years, from 1850 to 1860, the mines of California produced upwards of 100,000,000/. sterling, and the mines of Australia, during a similar period, produced an equally large amount of gold without the aid of capitalists or joint-stock companies. If the Transvaal is to be another El Dorado, there is no necessity for raising huge capitals to purchase large and useless areas of country, where there may be another El Dorado, there is no necessity for raising huge capitals to purchase large and useless areas of country, where there may be another El Dorado, there is no necessity for raising huge capitals to purchase large and useless areas of country, where there may be another El Dorado, there is no necessity for raising huge sums of money for the privilege of looking for gold and opening mines on land, hitherto and otherwise valueless, will not be re

will prove as profitable a field of enterprise as California and Australia have already done and are now doing."

The suggestion of another correspondent that the public should defer investing in the gold fields of the Transvaal until a report comes to hand from "an agent of an eminent firm" shall have been received is scarcely worthy of a moment's consideration. The very existence of gold in the Transvaal in quantities which could lead to the faintest hope of the smallest commercial return upon money employed in working it has been so positively denied in the Mining Journal that the promoters of the various concerns which it is intended to bring before the public have obtained numerous encouraging reports to serve as an antidote to the adverse statements, and one of the reporters—Mr. Stuart, I believe—has oliverpeglerised the district by following the Indian example of discovering ancient workings and the usual evidences of abandonment for want of machinery. Now, had Mr. Stuart discovered a Corliss engine bearing the name and date of some well-known ancient South African manufacturer—" Matabele Primus, Pretoria, A.D. 1234," for example—no one acquainted with the Transvaal would have had any suspicion that Mr. Stuart had been deceived; but of the ancient mine workings most miners have some doubt, and when the very little that has resulted in the shape of dividends to shareholders for the ancient Indian mine workings is considered it is a little to be feared that the Stuart antiquities will not assist to attract capital from England to the Transvaal. Mr. Stuart was followed by other professional inspectors, the South Africans in London knowing full well that a very powerful bait would be required to catch only half the trifle Gladstone required for his Suez duplicate. The engineers who have already reported for and to the South African Syndicate are as competent and reliable as any that could be employed; but the public—the poor public, I think, a Mining Journal correspondent recently called it—now well knows th

There is no doubt something to justify Mr. J. J. Hamilton when he writes, referring to a letter signed "M." in the Times City Article of July 18, cautioning the public against investing in the gold fields of the Transvaal until a report comes to hand from an "agent" who has been sent out by an "eminent firm" in London, that he would beg to draw "M.'s" attention to the fact that eight or ten engineers, some of them of high standing in their profession, have already reported most favourably on the extent and richness of the gold deposits in that country, and that he would further refer him to official reports, which show that prior to 1880 over 300,000%. had passed through the Custom House, and probably this would represent but a small proportion of the gold actually extracted. It is a matter of public notoriety, Mr. Hamilton says, that the weekly steamers are now bringing large remittances of gold to this country. In view of these facts he fails to see how a further report from the anonymous "agent" of an anonymous "eminent firm" can add in any great measure to the evidence which the public has now at its disposal as to the wealth of these fields. Probably what was passing in the mind of "M." when he penned his caution was strengthened by the figures which Mr. John J. Hamilton gives. If the Transvaal mines have, as he states, turned out over 100,000% of gold per an., for the last three years, how comes it that no gold mining or gold extracting machinery worth mention has been sent to the Transvaal during those three years from any country.—England, America, or Holland—wh such ample funds at command? Again, I would ask—who raised this gold, considering we have heard nothing of mines being worked either by natives or Boers, although we have heard that the few Australian miners who went there found so little gold that they

were glad to get away again as soon as possible to avoid starvation. That starvation would be prevented if some part of the 4,000,000*l*. which it is proposed to raise were sent there I cannot deny, but the starvation will not unlikely be transferred to the simpletons in this

starvation will not unlikely be transferred to the simpletons in this country who find the money.

The optimist views of Mr. John J. Hamilton do not seem to be altogether in accord with the Times, for his letter is published with a most crael introduction, in which it is remarked that they do not see why Mr. Hamilton should be displeased at the caution displayed by "M.," and sincerely hope that the public will follow the example of the latter, and not confuse the undoubted fact that there is gold in the Transvaal with the alleged fact that there is gold on the estate of some particular property situated in the Transvaal. As lately observed, it seems very probable that gold mining in that part of South Africa is about to enter on a phase of development in which the company promoter will have a good opportunity for the exercise of his talents. The conditions under which he attains success are, to put it shortly, first, the existence of a mania for undertakings of a certain kind, and, second, the formation of a few sound and a great many unsound concerns of the class in question. The really valuable properties generally remain in the hands of a few, for the very good reason that there are none too many shares available even for the directors and their friends. The sham properties are discovered, or rather invented, by the promoter and sold to the public. Mines are particularly excellent as a means of carrying out this kind of fraud, since it is very difficult even for experts to be certain that one mining property which lies near to another similar property of undoubted value is not also valuable. All this is an old story to most men of business; but there are many persons who are clever enough in managing affairs of which they have made a study, but are very liable to be misled by plausibly contrived prospectuses. One thing gives us reason to hope that there will be no South African gold mine mania, and that is the fact that the collapse of the Indian gold mining bubble is fresh in everyone's memory.

It is, perhaps, slightly too strong to say that the gold mines of the Transvaal are a mere invention; but capitalists, before deciding to part with their money, should consider, the indisputable fact that the prospects of the Transvaal, from the gold miners' point of view, are not one-tenth part as encouraging as those of India, and that the class of men who have the Transvaal business in hand are, to say the least, not more reliable than those who introduced the Indian constructions. If it be thought desirable to have the Transvaal explored for gold with British capital, by all means let it be done; but to purchase property, as gold mining property, with our present knowledge that all well authenticated facts are adverse to the Transvaal becoming a gold mining region—to the reports of professional inspectors who report to order I attach no importance whatever—would be reckless and unbusiness-like in the extreme. Enough has already appeared in the Mining Journal to prevent capitalists from losing their money through inadvertence—they have been told and retold that the Transvaal will return them no profits in the shape of dividends or interest, so that if they still persist in risking their funds they cannot reasonably complain of disappointment.

July 24. — HENRY PENROSE.

SOUTH AFRICAN DIAMOND FIELDS

SIR,—Looking over my file of the Mining Journal, I noticed the letter I wrote you from Kimberley on Sept. 16, 1881, with reference to the Diamond Fields, and which caused such a stir at the time. The opposition which it met with from a large number of your contemporaries will be fresh in the recollection of most of your readers, although they and your numerous correspondents must now admit that it has proved true in every respect, and they will, perhaps, acknowledge that there was never a letter written to the Journal that was more for the public good; it prevented European capitalists being fleeced, and caused many unscrupulous adventurers to trip on their own cupidity. Its republication at the present time would satisfy the public who was right, and might be useful to them in inducing caution on their part in dealing with certain South African matters now being offered for their consideration. I subjoin the letter to which I refer, and which was published in the Mining Journal of Oct. 22, 1881.

Thos. Collingwood Kitto.

Gunnersbury, July 23.

SIR,—During the 12 months that I have been absent from Kimberley for the benefit of my health the changes have been very great indeed. When I left there were only four mines, comprising in the aggregate 3397 claims of 30 ft. square, registered in the names of 556 claimholders, the whole of which have since been formed into public companies. Many of those claims were rich, but a large number were of little or no value; but during the last 12 months, owing to the great success of one or two companies that were first formed, there has been a perfect mania for forming companies, and every doubtful concern has been floated whether there has been a probability of success or not. Claims that were capable of paying were put into companies at two, three, and even four times their true value, and many claims that never can pay have been put in as dividend-paying concerns. In some paying companies large dividends were arranged for one or two quarters, which had the effect of sending upshares to three times their true value, when some were fortunate enough to sell out and retire. This state of affairs is bad enough, but it has not ended here; unscrupulous parties acting on the credulity of capitalists have started mines in almost every direction, and I have not the least doubt but that the practice known as salting has been extensively resorted to. Since my return I have been engaged to inspect and report on some new mines, but as my reports have not appeared in any prospectus puffing circular, I presume they are not the kind of reports required.

Not content with diamond mines, some attempt has been made to

Not content with diamond mines, some attempt has been made to manufacture gold mines, and I have seen telegrams published in various parts of South Africa stating that quartz reefs had been found near Kimberley yielding as much as 20 ozs. of gold to the ton. Reports were printed from men professing to know a great deal about gold mining, and who offered to purchase a small slice for a large sum, or at least so said the printed report. Knowing something of the geological features of the reported gold district, I was somewhat anxious to see a rich gold reef in trap-rook. I have examined at least 100 samples from the supposed reef, which were composed principally of very indifferent looking quartz and floatstone adhering to pieces of greenstone; and speaking generally a more unlikely lov-ing stuff for the production of gold I have seldom seen. I was shown two samples of gold said to have been found in the same place, but they were certainly not the spontaneous production of that locality, and gave me the idea of having travelled some thousands of miles. It cannot be wondered if after such a state of affairs everything in the place should be dull, and that persons who have invested largely should be anxious as to the future. The fact is the affairs on the fields are just beginning to find their true level, and notwithstanding the numerous complaints of the dulness of the share market many shares even now are selling above their value.

There is no question as to the stability of many of the mines here, and it is with sincere regret that I see such good mines so heavily handicapped. Many of the mines if properly managed are capable of paying regular dividends of from 12 to 20 per cent. per annum on about half the amount at which the claims were put into companies, and one or two may do a little more; but I very much doubt if many of the companies will ever pay a legitimate dividend. It will, therefore, not surprise me to see them placed on the European market. I hear that several diamond mines have already been offered for sale in England, and if the reports here are to be relied on they have been offered at about five times their true value. I am, therefore, bound to caution English capitalists who have money to invest against buying into old and expensive diamond mines without thoroughly investigating the present state of the mines, and getting the opinion of some disinterested and thoroughly competent mining man on the matter. In diamond mining more than any other past accounts and past profits are not the slightest guide to the future, and interested parties are apt to overlook such trifling contingencies, as the possible contraction of the diamond formation in depth or an influx of water sufficiently large to retard the operations of companies.

sufficiently large to retard the operations of companies.

Griqualand West is to all intents and purposes the land of diamonds, and has diamond mines on a large scale. I shall, therefore, advise

capitalists and those persons who are anxious to invest money in diamond mines not to lose sight of the fact that there are "as good fish in the sea as ever were caught." All that is required to secure them is practical economy, earnest application, selection of the most favourable localities, and honesty of purpose. There are one or two new mines opening in this district that will turn out rich, and will yield large quantities of diamonds, and I should like to see them in the hands of good English companies; but there are other new mines (so called) which I hear are being offered to English capitalists that will never yield a legitimate sixpence. It is, therefore, absolutely necessary that intending investors should exercise great caution. In being so candid in cautioning my mining friends at home I do so at the expense of local popularity, because here if a person is candid enough to write the truth some of the papers attack him with a virulence that would do credit to O'Donovan Rossa or the dynamite convention. I will send you reports of the various mines as soon as I am able.

T. C. KITTO,

Kimberley, South Africa, Sept. 16, 1881.

Mining Engineer.

Kimberley, South Africa, Sept. 16, 1881. Mining Engineer. P.S.—Since writing the above a report is current that a Mr. Harrison has gone to England for the purpose of floating what has been called the Frankfort Mine. I sincerely hope that such is not the case. In the meantime, for the benefit of my friends in England, I must inform them that I have inspected and reported on this property, but the report has not been published, and if it were it would not induce people to buy claims. The owner of the property has pressed me to make a second examination and report for the English market, to which I wrote the following reply:—"SIR: In response to your urgent request that I should make a second examination of your Frankfort property, permit me to inform you that I shall be pleased to do so at the proper time. In the meantime it is my duty to inform you that in the present undeveloped state of the mine I cannot conscientiously give a report that would be satisfactory to you or myself.—Yours obediently, T. C. KITTO, M.R."

MINES IN NEW MEXICO.

Sir,—In my last I stated that in this letter I would give an account of the Ortiz grant, and the old and new placers. It so happens, however, that since I wrote my last letter a very important law suit has come before the courts, the decision in which will so materially affect the title to a large number of the mines that I have thought it best to wait results before saying anything about these camps. It is a land grant suit, and involves very important principles that have got to be definitely settled before these camps take their proper standing. This letter will, therefore, be devoted to the White Oaks district, situated in Lincoln county. This camp is situated about 165 miles almost due south of Las Vegas, about 100 miles east of Socorro, and about 150 miles north of El Paso del Norte. Access to this camp from these points can only be had by stage at the present, although preliminary railroad surveys have been made from at least two of these points. At the present time the visitor to this camp has to choose, not the best route, but the least disagreeable. I would now ask the reader to accompany me by the route I selected, and they may be thankful that they did not dose in the flesh. Leaving Las Vegas at noon by way of the Atchison, Topeko, and Santa Fé Railroad, I reached San Antonio on the Rio Grande, a distance of 217 miles, a little after midnight. Seven o'clock next morning found me in a poor apology for a stage-coach commencing an overland trip of 105 miles, envolving a continuous ride of 22 hours. We cross the Rio Grande over a railroad bridge, the road bed of which is planked flush with the top of the rails for the benefit of those vehicles who prefer the risk of meeting or being followed by a locomotive to the greater danger of attempting to ford the most dangerous river from quicksands on the whole continent. After crossing we strike out into the sandy desert lying west of the Osoura Mountains, following closely the line of a branch railroad laid to some coal mines some 10 miles from San Antonio. I

to some coal mines some 10 miles from San Antonio. I may briefly dismiss them by saying that they show a vein of about 6 ft. 4½ in., of which is good coal suitable for locomotive and coking purposes. The field is very much broken up, and is very pockety, and will require a continuously large expenditure for opening new shafts, &c. They are nominally worked by an outside company, but are to all intents and purposes a railroad undertaking.

After leaving this mining village known as Carthage, we keep on ascending through the desolate and barren sand hills which are utterly destitute of anything that would sustain life—mesquite caotas, grease-wood bushes, and the jucca or soap weed being the only forms of vegetation. After a toilsome ascent of 25 miles we reached the first stage in time for a hasty lunch while the horses were being changed. This was a Mexican station, and the meal consisted of what is known as "Chile con Carne." This is composed as its name implies of meal chopped fine and mixed with red peppers or Chili, and it is best if you want to make a successfal meal not to pry too closely into its constituent parts. It is properly described by the expressive boarding-house term of mystery; this is washed down with a cup of villainous coffee, and you wind up the operation by depositing Creatro reales, or half a dollar—equivalent to 2s. English money—into the hand of the attending Seiora. Leaving this station we commence our journey through a 36 mile strip of what is talled the "Jornado del Muerte," or "Journey of Death." We saw not a living thing except a solitary wolf, who was sitting very peasively under a sage bush, and when startled by a shot from our revolver loped off in an evidently don't care whether you kill me or not kind of style, seemingly disgusted with himself at being found in such a desolate region. Every mow and then wast deposits of gypsum come to the surface, which being crushed as fine as flour by the wagon-wheels, rose in clouds of impalpable powder, filling our eyes, ears, and every av

th

y in

did

Iar-

uld

ant

the

railroad from El Paro to White Oaks is a certainty in the near future. railroad from El Paro to White Oaks is a certainty in the near future. When this is accomplished White Oaks will be the supply points, not only for a very large stretch of fine grazing country, but also for several other camps lying from 10 to 20 miles from it in different directions, such as the Nogals and Banito camps in the south of the Jicarrilla Mountains in the north. These camps, which will form the subject of my next letter, are all more or less developed, and have been proved to possess valuable mines; and the Jicarrilla in addition have immense placer deposits of even greater richness than these above mentioned. hose above mentioned.

In conclusion, permit me to say that it is a matter of surprise to me and others that English capitalists seem to be largely investing in gold fields in Africa and India and other torrid countries, and entirely overlooking the much richer regions of New Mexico, and it is a matter of still greater surprise to see the satisfaction expressed by directors and stockholders at results that would not be looked upon as of any value with us. There are gold mines in this region that would largely discount anything I have yet seen mentioned in your columns. It is true that no systematic effort has hitherto been made by really reliable parties to bring this region before English capitalists, but whenever that is done rich returns will accrue to the investors.

John Robertson, M.E.

Las Vegas, New Mexico, July 7.

Las Vegas, New Mexico, July 7.

COPPER MINING-NEW SOUTH WALES.

COPPER MINING—NEW SOUTH WALES.

SIR,—Copper mining has been making steady strides in this colony for the last few years—the opening up of the interior by our rail-ways and the consequent cheapness of carriage, having, of course, very much to do with its success, and the following Government report of one of the latest opened up of the successful mines—the Burrago Copper Mine—may not be without interest to some of your Welsh readers, as Captain Lewis Lloyd, of Bathurst, in conjunction with two wealthy and enterprising Sydney men (Messrs. Weston and Kelly), is the owner and manager. In his report to the Undersecretary of State, Department of Mines, dated Burrago, May 12, Mr. W. H. J. Slee says:—I have inspected the Burrago Copper Mines, which are situated in high ranges in the Abercrombic Mountains, and ris Rockley about 50 miles north of Bathurst. The country surrounding Burrago has a highly cupriferous appearance, and presents indications favourable to the existence of other copper lodes other than those at present at work.

The Burrago copper lodes, which occur in the silurian formation, were discovered and first worked about six years ago, and although about 3000 tons of ore were raised from these lodes during the years 1877, 1878, 1879, and 1880, which produced 360 tons of fine copper, or 124 per cent., the then company were unable to command sufficient capital for the erection of furnaces and other necessary ma-

1877, 1878, 1879, and 1880, which produced 360 tons of fine copper, or 12½ per cent., the then company were unable to command sufficient capital for the erection of furnaces and other necessary machinery, and as the expense of carriage to such a long distance as the Esk Bank Smelting Works, Lithgow, was too great, the first company or owners sold out, and about two years ago Mr. Lewis Lloyd, of Bathurst, formed a private company with sufficient capital to erect the necessary furnaces and other machinery. The result has been that under Mr. Lloyd's management the Burrago Mines have paid handsome returns during the last 12 months for the capital invested. A new main shaft will have to be sunk to the northeast of the present working shafts, and if this is once accomplished the ore will be more speedily and economically raised to grass, and a still better system of working the said lodes can then be adopted. The ore in the Burrago lode, instead of being found in bunches,

the ore will be more speedily and economically raised to grass, and a still better system of working the said lodes can then be adopted. The ore in the Burrago lode, instead of being found in bunches, as has been generally the case in these districts, is found in shoots with a north-east strike. Of these shoots there are several, but the largest so far opened and stoped on is 110 ft. in length, the ore averaging from 4 ft. to 9 ft. in thickness; and on the present lowest, or 185 ft. level, the ore looks if anything better than on the higher levels. These lodes contain very little carbonates or oxides, but mainly consist of yellow sulphites partly intermixed with quartz. The lodes near the surface are very thin, but have so far increased in size and quality as a greater depth has been reached. To get rid of the sulphites the ore is calcined and roasted before it is made into rough copper, and it is afterwards forwarded to the Esk Bank Smelting Works, Littingow, for refining purposes. The copper is of fine quality, free from base metals, and bears the Lloyd instead of the Burrago brand. About 200 men are directly employed by the company, of which 95 men are engaged in or about the mine, the remainder at the furnaces, wood-cutting, carting, &c. Ore raised in 1881, 2000 tons, equal to 260 tons of fine copper; in 1882, 5000 tons, equal to 480 tons fine copper; and from the beginning of 1883 up to date, 2700 tons, equal to 245 tons of fine copper.

There are four furnaces at work and one in course of erection, and a 12-horse power engine for winding purposes. A tram way has been partly laid, and is partly in course of construction from the mine to the furnaces. Water and firewood are plentiful. Of the latter there are about 10,000 tons stacked near the furnace, and large quantities of wood are brought in daily. The population of Burago is about 500, and there are stores, butchers, bakers, and there is no licensed hotel. The success of the Burrago mines has given quite an impetus to the search for copper lodes in the

Besides the above mine, they have also developed the New Mount Hope property, away back in the Far West, and it now bids fair to become one of the great copper mines of Australia.

R. D. A.

OLATHE MINING COMPANY.

THE OLATHE.—Some time ago the fraudulent Olathe Company of England stated that the Chrysolite or Little Pittsburg Mine, we forget which, was clandestinely stealing ore from its territory by means of drifts run beyond the boundaries into its territory. Now it claims the O. K. or some other mine is robbing it. The thieving outfit measures every one by its own degenerated standard.

standard.

"The Mining Record of New York publishes an article taken from an English exchange announcing a rich strike in the Olathe Silver Mining Company's property, and adds—"The attention of the Leadville press is called to the above for verification." The Leadville press has repeatedly denounced the Olathe fraud, and we repeat the statement. The Olathe Company have never done any work on their property, and consequently can have made no discovery. The company is the greatest 'bilk' on record."—Leadville Herald, June 29.

The Editor of the Mining Record calls the attention of the London Mining Journal to the foregoing local denunciation of this notorious "wild cat."

SIR,—The attention of the directors of this company has been drawn to a paragraph in the New York Mining Record of July 7.

drawn to a paragraph in the New York Mining Record of July 7, reproducing paragraphs [quoted above] from the Leadville Herald in reference to the company and its affairs, The directors desire me to inform you that there is not one word of truth in the paragraphs in question.

The title-deeds of the company, the Government patent which it holds with the plan, attached therete showing that the company's

The title-deeds of the company, the dovernment patent which is holds, with the plan attached thereto, showing that the company's ground lies to the south as well as the north of Big Evans Gulch, a copy of the lease which in June last was granted by the company to responsible parties (Messrs, Cleary and Nowland of Leadville) for three years, at a royalty of 25 per cent. of the gross produce of ore raised, the press accounts of the ore now being taken from the O.K., Four per Cent., and Comique shafts, and the advices received from the company's agent confirming these statements are at the company's offices and are open to the inspection of yourself or of any person interested in the company. These documents unmistakeably show that the operations of the O.K., Four per Cent., and Comique trespassers are within the limits of the Olathe Company's property, and steps are being taken by the board to restrain these parties by injunction. The claimants of the Buckeye portion of the Company's representative there also have defeated in their externations. mpany's property have already been defeated in their attempt to ke possession of ground nearly adjoining that on which the O.K.

take possession of ground nearly adjoining that on which the O.R. trespassers are working.

The issued share capital of the company is at present 66,071*l*., and the authorised issue of debentures is 25,000*l*.; the purchase money paid by the company to the owners of the property was 31,140*l*. in cash, 50,000*l*. fully paid-up shares &c., 18,660*l*. in debentures (part of the above-mentioned 25,000*l*.), a further 970*l*. of debentures has been taken up by the shareholders. The company's audited books and accounts (which are open to your inspection) will verify these figures.

As serious damage would be done to the company by your giving currency to untrue and libellous reports, the directors have desired me to place the above facts before you. One of the reasons for addressing you is that we observe by a memorandum in the New York Mining Record your attention is drawn to the statements in the local press.

HENRY KENDRICK, Secretary. local press.

Pancras-lane, July 26.

NORTH CAROLINA AS A SOURCE OF GOLD SUPPLY.-No. I. INTRODUCTORY.

SIB,—With your permission I purpose inviting the attention of the readers of the *Mining Journal* to the promising field for enterprise presented by the gold mining districts of the State of North Carolina. A contemporary remarked in a recent editorial that "prices of commodities have been falling for the last ten years; and, so far of commodities have been falling for the last ten years; and, so far as we have observed, no one seriously questions that the main cause of the fall is a comparative scarcity of gold, producing a rise in the price and purchasing power of that metal;" and proceeds to ably review the various periods of alternate rising and falling prices during several hundreds of years; their causes; and their connection with and dependence upon the supply of the precious metals, having at all times due regard to the increase of population and the consequently increased requirements for the purchasing medium, "coin." If the ground taken by the writer in question be correct, if the prices of commodities are abnormally low, owing to a comparative scarcity of gold; and if the gold supply is inadequate to our commercial requirements, as the article referred to infers, this condition of things is an undesirable one, and the necessity for augmenting the supply of gold is demonstrated.

condition of things is an undesirable one, and the necessity for augmenting the supply of gold is demonstrated.

This can only be attained through the medium of mining. Very much has been written and a great deal more said, condemnatory of mining, and the striking anomaly exists of the banker, the merchant, and the manufacturer, to whom a circulating medium, liable only to trifling fluctuations in value, is most essential, denouncing mines and mining in most unqualified terms. Yet the business and prosperity of these members of the community would come to an end without the products of mining, which are essential to and inseparable from our modern commerce, our means of transportation and communication, and our civilisation. Still, apparently ignoring this fact, mines are decried on all hands, and the man who engages in them is too often eyed with suspicion and distrust by the business community. For this there is a cause, and that cause is not far to

this fact, mines are decried on all hands, and the man who engages in them is too often eyed with suspicion and distrust by the business community. For this there is a cause, and that cause is not far to seek. Mining in itself, though perhaps attended with somewhat more risk, is as necessary as banking insurance, bill discounting, telegraphy, or any other branch of business, none of which are absolutely certain and free from risk. It is, per se, perfectly legitimate, and, as I have already said, indispensable. These denunciations have unfortunately been directed against the industry itself, instead of against those who have employed it, as a means of securing illegitimate and often fraudulent gains for themselves. Dishonest promoters, brokers, agents, and often equally dishonest directors, have contributed in no small measure to the present ill-repute in which mining is held. Fortunately there are honest men among all these classes; but for which things would be much worse than they are. Nor have the investing public been wholly free from responsibility in this matter. They have seized with avidity every glittering bait, swallowed without investigation what the Times recently described as "plausibly-contrived prospectuses," lost their money, as was to be expected, and then blamed, not their own folly and avariciousness, and the misleading statements of unprincipled promoters, but mining as a whole. They have, for a time at least, foresworn all connection with mining, but in due course have again gone through precisely the same experience, having learned nothing by their past folly. It is greatly to be deplored that the industry has not long ago been purged of these sharks and vampires, who "devour widows' houses and for a pretence make long prayers," and to whom it is indebted for its present evil repute. The fact remains, however, that we require and must have constant and steady supplies of all the metals, and notably of gold, to meet the waste of existing supplies and the ever-growing demands incident to and legitimate expenditure of capital, should be the aim of all who have at heart the permanent and successful maintenance of the mining industry, and should receive the encouragement of other sections of the business community whose success is so intimately though some-

the business community whose success is so intimately though somewhat indirectly associated with it.

The State of North Carolina apparently presents many opportunities, not only for successful gold mining, but for the profitable employment of capital in the utilisation of its large tracts of wondrously productive but uncultivated soil, its immense forests of excellent timber, and the developement of its mineral resources, which are of west extent and almost infinite variety. In a subsequent which are of vast extent and almost infinite variety. In a subsequent

paper I propose to treat more specifically of these.

Great Winchester-street, July 26.

COPPER, AND COPPER MINING IN THE UNITED STATES.

SIR,-There is no question but that the production of copper in the United States at present exceeds the consumption of the metal, but it is not clear as to the amount of the surplus. Astonishing stories are told of the capabilities of the Western Territories and Mexico as copper producers. In the absence of new fields of silver and gold mines attention will be turned to copper, and no doubt a great deal of ingot will find its way to market from the West. Whether enough will be forthcoming to demoralise prices here or to have a perceptible effect on the English market is the question that often comes up for discussion, and I do not feel competent to pronounce an opinion.

If the representations made relating to those new sources of annual contracts.

If the representations made relating to those new sources of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply are nearly correct, then it is easy to see that the business of supply limits the world with Financiary from the present location and be given over to new producers, but it is quite possible that the change will not be as radical as is now predicted. The western people never do anything in a small dway, and this is especially true of their taking. The Longfellow Mines, clifton, Arizona, have long been celebrated for their riches and territories, but that he had ever so of clorado and there states and Territories, but that he had ever seen a better mining country than this in all his travels. Adams Hill mother States and Territories, but that he had ever seen a better mining country than this in all his travels. Adams Hill mother States and Territories, but that he had never seen a better mining country than this in all his travels. Adams Hill mother Well-known mines in the neighbourhood is given in t nounce an opinion.

If the representations made relating to those new sources of supply are nearly correct, then it is easy to see that the business of supplying the world with copper—a few mines excepted—must be transferred from its present location and be given over to new producers;

33,029 ,, Yield of ores 12.73 per c Black copper produced (96½ per cent. ingot)... 8,409,112 lbs. 12.73 per cent.
 Ingot copper produced
 8,114,890

 Value of product
 \$1,314,973.25
 Cost of product \$761,071.13 16.2 c. Cost of product per pound 9:38 c.
Profit on product per pound 6:82 c.
The current quotations for ingot copper would in all probability require a scaling down of the price obtained now to 14 cents. per 1b., which would make a difference on this account on the year's business of \$175,000. The Engineering and Mining Journal from whom I obtain these figures does not quote the mine report at length. I gather, however, that the supply of ores was very largely drawn from and above the second level, which has proved to be all that was expected of it, and reserves still there amount to 20,000 tons. Developments below 300 ft. level have been checked by the heavy influx of water. The reserves noted do not appear important, being less than eight months' supply for the furnaces. Possibly the lower level is not yet extensively opened, and for this reason not specially referred to.

A point of interest which bears on the Copper Queen, as well numerous other high grade ore producers in the West may now soon be determined—whether when water is encountered the rock will be found harder and more difficult to mine, and the ores leaner. The mere fact of having the heavy influx of water to pump will certainly

lound harder and more difficult to mine, and the ores leaner. The mere fact of having the heavy influx of water to pump will certainly increase the cost of mining where fuel is high priced. The present price of ingots—materially less for the Western brands than for those of Lake Superior—should shut off speculation very largely, and will close up many small producers. It will be work and not talk in future. That must establish the profits that are to be derived from copper mining in the territories, while in the aggregate I am satisfied that there is much copper, and as elsewhere occasional good mines will be found. Yet it is not yet evident that deep and permanent mines are to be very numerous in those regions.

The mines of Butte, Montana, produce silver quite largely in

The mines of Butte, Montana, produce silver quite largely in association with copper, giving them a great advantage. Good reports reach me from that district, but I have no personal knowledge of their capacity. Much of the copper from Montana goes to your side of the water. The Lake production of copper this year will not be much in excess of 1882. There are one or two new producers, but the arounts are not invested. but the amounts are not important. No important mine has ceased working or curtailed production, but profits are very much curtailed in some instances, and it is difficult to see how some others are now

self-sustaining.

It some instances, and it is difficult to see how some others are now self-sustaining.

I know very little about the Belt Mines. Some of the local papers are discussing the promotion of the company and purchase of the property just at this time. Those in England interested will probably get all the information they want at the company's office in London. The mines are in Ontonagon county. Erection of a stamp mill is being proceeded with, and the mine developed as fast as circumstances will permit. Rumour says that the show of copper just now is really good. The lodes on which work is now being done have been tested quite extensively, but nowhere at a great depth on other mines. It cannot be said, with the single exception of the Mass Mine, that success has been attained at any of them, but improved machinery and modern mining appliances have nover been brought into action, nor has working on an extensive scale been attempted. It seems that no expense is to be spared in making the effort to be successful this time, and the Belt Company certainly have the good wishes of the Lake Superior people.

J. D. Opechee, Houghton, County Michigan, July 10.

AMERICAN MINING LAW-LODE VERSUS PLACER CLAIMS.

SIR,—Another important decision on the subject of lode revus placer claims has recently been made by the Commissioner of Lands in Washington, which will probably be of interest to the readers of the Mining Journal. To state the case briefly I may say that on March 14, 1879, the Maudelle mining claim was located a short distance north of Fryer-hill, in Leadville. Nearly three months later the Olathe Placer was located, and an application for a patent filed in the Land Office, at Leadville, on July 7, of the same year. Sometime afterwards subsequent I believe to the issuance of the Olathe patent the owners of the Maudelle filed an application for a patent. A motion was then made by the owner of the Olathe Placer to dismiss the application, but this was denied by the Register. An appeal was, therefore, made to the Commissioner of Lands in Washington, who decided that, inasmuch as the owners of the Maudella has failed to comply with the requirements of the law, the decision at the Land Office, in Leadville, would be reversed, and the application for a patent, on the lode claim be refused. The benefit of this decision to owners of placer patents, and especially to the Olathe Silver Mining Cempany, is of great importance, because it virtually establishes the right of this company to the O.K. Comique and 4 per cent. claims.

These mines are all producing mineral and are in every sense. SIR,-Another important decision on the subject of lode rerans 4 per cent. claims.

4 per cent. ciams.

These mines are all producing mineral, and are in every sense parallel cases, to the Maudelle, for although located about the same time as the Olathe placer, and included in those limits, mineral was time as the Olathe placer, and included in those limits, mineral was not discovered in either until about six months ago, two years subsequent to the issuance of the Olathe patent. Indeed, the owners of all these claims attached so little importance to them that they did not even file an adverse to the Olathe application for a patent as required by law, and this alone is strong evidence that no mineral had been discovered in either of the claims mentioned. During the past few weeks some of the Leadville papers have published statements detrimental to the interests of this company, intimating that they have no property near the O. K.; but eminent counsel having enquired into the matter, have decided that if the company take the proper legal steps they can not only obtain possession of the O. K.

enquired into the matter, have decided that if the company take the proper legal steps they can not only obtain possession of the O. K. and contiguous mines within their own limits, but also recover the amount already taken out, which, I understand, exceeds \$100,000. The bullion product of the Leadville mines, as shown by the records of the smelters for the first half of the present year, amounts to \$7,942,477, against \$7,822,390 for the same period of 1882, making an increase of \$120,087, and verifying a statement made in my previous letter that the result would be more satisfactory than those of vious letter that the result would be more satisfactory than those any previous years.—Denver, July 16.

J. FITZ BRIND.

MINING IN NEVADA.

There has not been any prospecting done in this county with the exception of Ruby Hill, and that has been done in the Eureka Consolidated and Richmond Mines. The mines are not sank deep enough. The Jackson and Phœnix Mines, on Ruby Hill, will yet surprise the world with their mineral productions. Let the owners of these properties take hold of them with a will and do half their duty in regard to them, and great things will be the result. There are scores of mines in this camp that have just as brilliant a future as any yet found here, but the men who own them are too poor to properly work them, and merchants have "put up" for them as long as they can with safety to themselves, and as a consequence tho: properties are lying idle, and by-and-bye some fellow with a litt's capital will come in and reap the reward of the long years of labour of these poor men. One of the principal things needed in the mining industry is purely legitimate work on the part of those mining men who are placed in control of the properties of outside companies. This will pay all in the long run. By this mude of working, capital, which is naturally shy, will be attracted, and the mines will be prospected and things will "flourish and bloom as the rose."

It was stated recently in the Eureka Leader that the new shaft at the Eureka Consolidated is now down 1180 ft. from the floor of the

machinery. It is calculated to sink the shaft 1220 ft., so that in two weeks the shaft will be down its intended depth, and drifting to the machinery. It is calculated to sink the sinker 1720 fer, so that it two weeks the shaft will be down its intended depth, and drifting to the ledge will then commence. That ore in large quantities will be found in the mine there is no doubt. Everything seems to be favourable for the Old Reliable to have as large bodies as were ever found in that mine. It will be remembered that all the ore ever found in in that mine. It will be remembered that all the ore ever found in this mine was encountered between the quartzite and shale. On the 7th, 8th, and 9th levels these two formations were from 600 ft. to 800 ft. apart, and in some places on these levels ore was found all the distance. On the 10th level the shale and the quartzite began to come together. This state of affairs continued until the 12th level was reached, when they were only a few inches apart. It was thought by many of our mining men who were acquainted with the principles that seemed to govern the existence of ore in this mine, that the "game was up," and that the bottom of that grand old mine had been reached. But such was not the case. An additional 100 ft. were sunk on the quartzite, and when the 13th level was reached a drift was started, and when in a short distance it was found that while the quartzite and shale on the level above were only a few inches apart, they had taken a turn somewhere in the last 100 ft., inches apart, they had taken a turn somewhere in the last 100 ft., and were going away from each other, and were then over 200 ft. apart. But the best feature in this change was that, while on the and were going away apart. But the best feature in this change was that, while on the 11th level the ore found was not of a very high grade, and that on the 12th level scarcely any was found, on the 13th a great deal of ore was encountered that was of a much higher grade than any before taken out of the mine. Then an additional 100 ft. was sunk, and the 14th level was reached. At this point the troubles of the company were also reached.

The results of the different drifts and cross-cuts were highly satis-factory. The extent of the ore-bearing ground was not determined, but several hundred feet of drifting through the ledge from the but several hundred feet of driting through the ledge from the quartzite failed to encounter any shale. In the meantime ore was found in small quantities that was very rich. There was not much work done on this level, for just as they had their level open and were getting ready to prospect for one bodies there was such an increase of water that it was utterly impossible for them to work, and operations at the lower levels of the lodd works were accordingly supposed and the sinking of the Logan shaft commenced. The suspended, and the sinking of the Locan shaft commenced. The Richmond people at their bottom level have very fine prospects, so that there is no reasonable doubt of the Ruby Hill ledge yet astonishing the world with its mineral output. By finding space for astonishing the world with its mineral output. By finding space to the above, which I believe to be quite reliable, you may confer lasting benefit upon all connected with—

Ruby Hill.

New York, July 5. PERRANZABULOE MINES.

SIR,—The next silver-lead mine adjacent to Penhale and Wheal Golden 100 fathoms to the east is that of East Wheal Golden, or Phœnix, the latter was formerly known by the appellation of Pigeon Green. To those mining authorities who have inspected this mine, Captains Southey and Argall are amongst the number, it is beyond the region of doubt, as far as human knowle lge goes, that it is one of the mines of the future; but as my letter in the Journal of June 9 gave a long description of this mine, and to prevent tautology I will strictly confine myself to a few important points not commented on therein, as to why this mine should make history. In first place, Phœnix is the champion lode of the district, possessing two well-defined walls, and averaging in width 5 ft. 6 in. I would here borrow extracts from an article in the Journal of June 30, headed "Lead Mines in connection with Iron Deposits;" but as in doing so my letter might expand too much, I will comment on that sensible article in another communication. Phœnix lode, with the exception of a little work done at East Wheal Golden, Penhal Town-place, Phœnix itself, and a shaft sunk 15 or 16 fms.—100 fms. south of Phœnix engine-shaft, where over 12 tons of carbonate of lead was raised—it is virgin. With the exception of Phœnix the other places were worked to the limit of horse-whim power. There is a counter or contra lode in connection with Phœnix, with a western region of doubt, as far as human knowle ige goes, that it is ounter or contra lode in connection with Phænix, with a western underlay, rice versa underlay to Phenix, which can be seen in the cliffs of Holywell Bay. So that from the junction of this lode with Phenix in depth and horizontally the company may reasonably ex-

Phoenix in depth and norizontarily the company may reasonably pect valuable results.

From an antiquarian point of view the situation of Phoenix is singularly interesting, as the lode shows itself in the cliffs on the southern side of the noted Holywell Bay (Cubert Porth), and is about a quarter of an hour's walk from the old Perranzabuloe Church, built by St. Piran, found buried in the sands. Holy Well is situated about two miles south-west of Cranlock, and within that distance of about two miles south-west of Cranlock, and within that distance of Cubert. The stories in connection with this wonderful well would fill a volume, and are recited by the old residents, or aborigines, in all good faith as to their veracity—their savour is legendary. The well itself is in one of the caverns in the cliffs on the northern side of the bay and easy to find, as even the sheep in its immediate locality seem acquainted with its whereabouts, and approach it with all the reverence sheep possess. It is a curious place; after passing over a few loose boulders of clay-slate (I may here mention that the country is of this composition) the mouth of the cave is reached, where steps are found up to the well, which consists of two cavities. country is of this composition) the mouth of the cave is reached, where steps are found up to the well, which consists of two cavities, having a communication or aperture between them. These cavities are supplied with water from above, and their appearance in many respects is deeply interesting. Beyond the well there is a cavity extending into the cliff. In olden times, on Ascension Day, mothers brought their children from long distances, and dipped them into the well and passed them through the aperture, and thus, it is said, they became healed of any disease or deformity they might possess, or if they had none it was a sure preventative against anything of the sort in future. It is also said cripples were accustomed to leave their crutches in the hole at the head of the well—only in recent years this custom was prevalent, as I have a man in my employ (Rd. Rickless) who can well remember hearing children "yelling and screeching" (his own words) on Ascension Days when undergoing the process. When a child his mother put him through it, but only one day last week he missed a shift and remained at home with the "crick" in the back and the water is said to be a sure preventative against this particular complaint which Cornish miners are subtive against this particular complaint which Cornish miners are subject to and others, but under another name. In fact the sum "tottle" of the power of this water still remains in the minds of the old residence. dents on a par with that of the water of the River Styx, whereon the one-eyed Charon used to ply his oars.

W. NINESS. Perranporth, July 24.

LEVANT MINE, AND ITS MANAGEMENT.

SIR,—The account at this mine, which had been preceded by a loud flourish of trumpets, announcing that never before had this or any other mine in St. Just brought into the market in the same space of time so much copper ore as Levant has at the present, came off on July 17, the Press reporters being for the first time excluded. Our copper ore sold represented 504 tons 18 cwts. 2 qrs., reaching the former of 2878 J 26781 5s. 10d., whereas the sale of 424 tons 19 cwts. 3 eight months since realised 32631, 17s., at an average of 71, 13s. 3d. eight months since realised 3203l. 17s., at an average of 7l. 13s. 3d. a ton, showing a falling off in the value of our ore to the extent of 32 per cent., eight times as great as the reduction in the copper standard of 4 per cent. since that period, the present specimens bringing only 5l. 6s. The unprecedented low value of our mineral, which has usually taken the lead amongst the copper mines of Corn-

which has usually taken the load amongst the copper mines of Cornwall, is due partly to our lodes turning out more yellow and less grey copper ore, and to the absence of proper management in assorting it for sampling.

With reference to the men's club money, with considerable difficulty I ascertained that three weeks since the men had been assessed under the Employers' Liability Act, on the principle of allowing the injured miners as little as possible, and that the surplus funds for the past would remain, and that for the future be retained in the hands of the purser. Under these circumstances it cannot be a matter for surprise that a bona fide dividend still remains in abyance, the one now declared of 5s, a share representing 596L 5s, being made by crediting 10 tons of tin unsold of the estimated value of 533L 15s., which in addition to 79 tons 4 cwts. 2 qrs. brings the figure to 4730L, the dividend to be paid by money borrowed, as the Bank

tually declared on the men's club money, standing at 1161. 3s. 7d., when 23 tons of tin were credited unsold, the bankers at that time having a balance against the mine of 1907?. 5s., whereas at the previous account, held Dec. 5, 1882, a balance in favour of the mine was shown of 423. 6s. 11d., the first time for nine years that Levant Mine has occupied such a favourable position as regards its finances.

Mine has occupied such a favourable position as regards its linances. The bank charges for the past two accounts, taken together, amount to 251l. 15s. 5d., representing a much larger sum than this mine has ever before paid the bankers in the same space of time, the largest moiety of which has only been exceeded once (in February, 1881) when the mine owed the bank the sum of 4664l. 3s., for which 141l. 3s. 8d. was then charged, the previous charge of 60l. 7s. 8d. appearing at the account of October, 1880, the overdrawn balance being 2993l. 15s. 2d. The account held in May, 1881, showing a balance against the mine of 3230l. 19s., with the bank charge of 80l., making a total of 281l. 11s. 4d., commission and interest for 12 months. 12 months

12 months.

In the absence of a mine manager, Levant is now in a far worse financial position than when deeply in debt to the bank, paying in some way a heavier interest, and for what? I should be glad of any suggestion from some of your numerous readers in what way to rectify the present state of affairs, whether Levant might not be placed in the hands of the Stanneries Court, in order that the books might be thoroughly examined, and the adventurers might learn in what way and to what extent they are being wronged by a party who utilise the account-house for their private purposes at our expense. I suggest this as the two members of the committee, one of them a paid servant, who resides at Trewelland, in the immediate neighbourhood of the mine, have threatened me with bodily violence if I venture to come to the mine to ascertain the state of the books, or to investigate how our monies so unsatisfactorily disappear.

St. Just, July 25.

R. B. Searle. St. Just, July 25. R. B. SEARLE.

THE CALLINGTON DISTRICT.

THE CALLINGTON DISTRICT.

SIR,—I should think the directors in Redmoor are delighted to be able to inform the shareholders that the tin is turning out a great deal over their expectation. They have sold their first batch of tin, and the second will be ready in a few days. At Trebartha Lemarne the stamps were started to work on Monday last, in the presence of many of the directors and shareholders. There is no doubt but that they will be soon in the market with their first batch of tin. I hope the directors will have something good to lay before the shareholders at their next meeting, which will be held in about three months from this time. The lode in Wheal Lusky is still improving in the adit level going to the hill, and there is every appearance of still further improvement ere long.

Callington, July 25. further improvement ere long. Callington, July 25.

THE TREATMENT OF MINERALS IN CORNWALL.

SIR,—Will any mine agent kindly inform me through your columns what it costs per ton of stuff in his or any other mine from the time it arrives at the collar of the shaft until the tin is made marketable, and the percentage of tin lost, if any, by the present mode of dressing. According to the flourish of trumpets at the after-dinner speeches of the Mining Institute at Newquay, the round buddle is the height of perfection. In this I beg to differ, and am prepared to show that the present mode of treating minerals in Cornwall is a disgrace to all mining, both in efficiency and economy. Thousands upon thousands of pounds per year are and economy. Thousands upon thousands of pounds per year ar squandered in this direction, but can be saved if prejudice could only be got rid of; and if any mine agent in the country will only condescend to answer the above question facts will be forthcoming showing the superiority of the jigger over anything yet adapted for tin dressing.

RICHARD SOUTHEY. for tin dressing Wheal Jane, July 25.

MINING NOTES AND RECOMMENDATIONS-No. VI.

MINING NOTES AND RECOMMENDATIONS—No. VI.

The close observer cannot but have noticed the great improvement which has taken place in dividends returned from foreign mines during the past few years. Seeing that we are in such depressed times, it is encouraging to find that mining capitalists are reaping rewards from some of their properties. In some degree, the same may be said of home mining, which, though not showing an increase, maintains as nearly as possible the gross results of six or seven years ago. During these years there have been companies formed and large capitals subscribed, but they have proved to be abortive. While, however, they have carried with them loss and disappointment, we can congratulate ourselves with the fact that the country has become no poorer for it, the money thus subscribed and expended simply changing hands through the various ramifications which constitute our commercial and industrial life.

Capitalists who soar high in the sky of finance look down on mining investments, and, if not absolutely that, they deceive themselves

Capitalists who soar high in the sky of finance look down on mining investments, and, if not absolutely that, they deceive themselves with the idea that they mean nothing but loss. But the great cloud of figures representing railway companies, and the thousand and one schemes which floated on the monetary waters, and proved to be rotten and have become wrecks, are really awful to contemplate, as compared with mining. Our industry at present has a head wind, but the good old ship mining makes way, and the commercial breeze will doubtless soon bear abaft the beam again, and the cargo of dividends carried the sconer to the pockets of adventurers. We cannot but be hopeful, everything around inspires, creation breathes it, and man welcomes the breath. Even the gleam of sunshine in the passing shower and the break in the storm-cloud play their part; and so, in all things, to the last faint whisper of expiring life.

There may be some despairing shareholder tracing these lines, and he may be led to take heart again. But to come to practical things, with which we are here concerned, we will glance at the progress of mining from the Dividend-list of foreign mines. I must acknowledge that by only examining this it will appear unfair; indeed it will be to the sum of mining. But one thing at a time. But if we go to what are termed high-class investments we shall find that they are valued only in accordance with what they return, and not in conjunction with a they are valued only in accordance with what they return, and not in conjunction with what properties of a like prature, which are in a trace.

are valued only in accordance with what they return, and not in con-junction with other properties of a like nature, which are in a tran-sitory state, or which may have become worthless. At the same time

sitory state, or which may have become worthless. At the same time I will venture to assert that mining taken generally will compare favourably with any other class of industrial or commercial security. In 1876 there were 24 foreign dividend-paying mines, with a capital of 4,034,2364., and these together returned 613,3264., or over 15 per cent.; a profit sufficient to induce investments. If, however, we make selections from the list we have necessarily some of the mines making much larger profits than others. For instance, Cape Copper, with a capital of 140,0004., paid 80,0004., or 57 per cent.; Fortuna, with a capital of 50,0004., paid 18,3334., or 36½ per cent.; Et. John del Rey, capital 253,0004., paid 113,3104., or 45 per cent.; St. John del Rey, capital 253,0004., paid 113,3104., or 45 per cent. These are handsome profits; but they are from some of the prizes of mining. In 1877, 19 mines paid on a capital of 3,608,0304. 516,5204., or 14½ per cent. With one or two unimportant exceptions every mine returned ent. With one or two unimportant exceptions every mine returned less than in the previous year. The great falling off was in St. John del Rey, which returned 24,7601, or 10 per cent. less. Dividends in 1878 were a little more cheering, Richmond coming to the front with the year's dividend equal to 55 per cent., after paying 12,8001., one-third of the debenture debt. Cape Copper declined slightly in its returns, paying 50 per cent. In the aggregate the dividends were nearly 19 per cent. During 1879 there was a relapse in total returns. On a capital of 3,316,0251, the dividends were 493,5582, or 15 per cent.—the dividend on St. John del Rey being 25 per cent. Richmond paid 25 per cent., against 55 per cent. of 1878. In 1880 there was a marked increase in the totals of 57 per cent., some of the companies showing an advance; there were, however, others just entering the Dividend-list, with large capitals, such as Fanulexceptions every mine re just entering the Dividend-list, with large capitals, such as Panulcillo, and so the average was brought down to 12½ per cent. In 1881 the total dividends were 929,6682, or 12 per cent. on the whole of the companies. In 1882 the dividends increased to 1,334,822L, on a capital of 9,656,006l., or 14 per cent. It will be seen what a great change has come over foreign mining, and these results are from mines which for the most part are young. The number of dividend-paying mines have fluctuated between 17 and 26, and the dividends of 24 mines in 1876 have been increased in the 25 circle dividends to 4730%, the dividend to be paid by money borrowed, as the Bank charge of 135%. 10s. 10d. for commission and interest plainly declares; the charge at the previous account, when a dividend was vir- 210 per cent., and the capital has increased by 231 per cent.—the

interest in 1876 being 15 per cent. and that of 1882 nearly 14 per

Taking the average of the interest over the seven years we find that it is equal to 14½ per cent. Many of the companies since their incorporation have made exceedingly large profits—

and have made exceedingly large prop	108	
Alamillos	120	per cent
Cape Copper	611	
Copiapo	71	**
Fortuna	400	
Linares	605	89
Mason and Barry	40	99
Panulcillo	33	**
Richmond	279	.89
St. John del Rey		93
Santa Barbara	100	93
Scottish Australian	158	.03
Sierra Buttes	104	93
Plumas	104	99
Tharsis	236	1 "
Western Andes	72	
Trobboth Alitaba	10	3

THE CHACEWATER DISTRICT.

SIR,—May I draw the attention of your numerous readers to an important sett in the county of Cornwall which is now lying idle, but which with energetic work and practical management might be made a paying concern. I refer to Great Wheal Busy in the parish of Chacewater, Cornwall, adjoining the dividend-paying Killifreth, and on the same run of lodes as Wheal Peevor, Great North Downs, Wheal Rose, and other productive mines. This mine worked from 1856 to 1866, and sold many thousand pounds worth of tin and copper in that period, but owing to indifferent management and the low price of metal it was knocked in the latter year, though at the time of operations being suspended there was a good lode of copper in the 130 at Harvey's engine-shaft, and a fine tin lode in the 90 at Walker's. Another adventure was undertaken in 1872 under the management of Messrs. Lean, Jose, and Co., but without much success, owing to the secession of some important shareholders which had the effect of frightening the others before the managers had any success, owing to the secession of some singular than the secession of some singular than the secession of t hundreds of tons of halvans have been carried away, stamped, and have returned a good profit for tin, and a party of men have been working under the lord of the sett for some years past with excellent results, many tons of tinstuff having been sold. These men commenced to work at the adit level, and have risen through and on the lode until they have actually holed to surface to the west of the stamps engine-house, and they are at the present time doing remarkably well. remarkably well.

The mine could be set to work very cheaply, as there are at pre-The mine could be set to work very cheaply, as there are at present on the sett a good 36-in. stamping-engine, a remarkably fine range of shops, smithy, saw-mill, &c., in perfect condition, house for 90-in. pumping-engine in excellent repair, and a house for a 76-in. engine that has never been used.

G. S. C.

Chacewater, July 23. WEST CARADON MINE.

-Please allow me space in the Mining Journal to direct attensign.—Please show he space in the Anthony source to direct attention to this mine. The company commenced operations about three years ago, and since that time a part of the set has been detached, and is now being worked as West Gonamena. But against that may be placed the present greatly improved condition of West Caradon be placed the present greatly improved condition of West Caradon Mine, including the recent important discovery of Gilpin's lode, which has been missed for a number of years. According to last reports from the agent the yield is about 11 tons of ore per fathom in the aggregate, with strong indications of early improvement. The ore is very rich in quality, the 128 tons sold at Truro in May realising 7421., or an average of 51. 15s. 10d. per ton. South Caradon ore sold at the rate of 51. 4s. 9d. per ton, and Devon Consols at 11. 16s. 7d. per ton only—average prices, showing that the price made for the West Caradon ore was the highest of any at the sale. The financial position of the property is also sound and good, the balance-sheet of January showing a balance of assets over liabilities of 7701., and a call unnecessary; while at the last meeting of the company, held in May, the balance in favour of the adventurers was still 5141., and only a small call of 6d. per share was made, notwithstanding the fall aly a small call of 6d. per share was made, notwithstanding the fall price of copper ore since January. It is not a sufficient reason to give for the present market value of

It is not a sufficient reason to give for the present market value of the property that the mining share market is depressed, because the shares of other companies in a much worse position are now quoted at much higher prices. Take, as an instance, one concern which at its meeting this month showed a loss on four months working of its meeting this month showed a loss on four months working of 625L, and a debit balance of 272L. Again, another and formerly dividend-paying company has not paid a dividend, I believe, since December, 1880, and the shares in both undertakings are quoted higher than those of West Caradon. It should only require attention to be directed to the merits of West Caradon to ensure its being in greater favour with investors.—King's Norton, July 24. J. W. H.

PROXIES, AND ABSENT SHAREHOLDERS

SIR,—By the 4th section of the Stannary Act resolutions passed at a meeting of mine shareholders by the shareholders present or those represented by proxy is stated to be binding on all the shareholders in the company. Will you kindly state in an early issue of your valuable Journal what is the usual practice adopted in Cornwall at meetings of shareholders in mines conducted on the Cost-book Principle with regard to proxies, and whether they come under the Companies Act, 1862?

ADVENTURES.

MINING IN SHROPSHIRE.

SIR,-We were pleased to read "R. J. M.'s" letter about the new railway scheme from Staffordshire through South Shropshire, and through to South Wales, and we hope it will be of as much advantage to the mines here as he anticipates. We have no doubt it will tage to the mines here as he anticipates. We have no doubt it will be quite practicable to send out a tramway from Lydhams Heath to Roman Gravels, and that it will cause a greater competition with the coals, and perhaps the lead sales too, and the advantages altogether will be very considerable. But the question we ask each other is this, will the proposed railway ever be constructed, or fall through the same as the Rea Valley scheme, and the extension from Lydhams Heath to Montgomery scheme? "R. J. M." will please excuse us if we are a little sceptical now after these years of disappointment.

The white grit and old grit mines, as well as Ladywell, Shelve Pool, Rhadly, and Cefnygunthly Mines, are on that side of the district, and we have no doubt "R. J. M.," with ourselves and many others, would like to see a better price for lead and these mines opened and developed. This district is sure to attract the attention of mining men in the future. The price of lead is very discouraging, but we should look at both sides of the question. Labour is much cheaper than it was ten years ago, and materials are to be had much cheaper, and every company should attend to these matters, and pay up as closely as possible, and get the best and cheapest materials for the use of their mines.

MINER.

EAST WHEAL ROSE AND OLD SHEPHERDS.

SIR,—I anxiously scan the Mining Journal week after week expecting to see some account of the realisation of the great promises made at the first starting of the above enterprises. I have been the cause of inducing many of my friends to purchase shares in these mines upon the faith of the glowing accounts published from time to time. A short time ago I met one of the leading mining engineers and mine owners in Cornwall at Truro, and asked him to kindly give

Mr. M. PHILLIES (the secretary) read the notice convening the meeting. The reports of the directors, of the committee of enquiry appointed on Dec. 21 last, of Messrs. Rickard Bros., and of Mr. Joseph Taylor, were taken as read.

The CHAIRMAN said, as the meeting was convened imprimis for the reception and consideration of the committee's report, he thought, subject to the approval of the shareholders, that the best plan would be for the committee to make any observations in reference to their report that they might desire, and after that he would state the course which he and his colleagues advised should be pursued.

Mr. John Welch (the Chairman of the committee) said that before proceeding to the business of the meeting he wished to allude to the add loss that the committee and the company generally had sustained in the death of Mr. Thomas Quinlan, as gentleman of large experience in company matters, and in the proceedings of mining companiestin particularly the committee and the companiestin particularly and the committee and the companiestin particularly and the proceedings of mining companiestin particularly the committee into existence, and had the committee probably when that report was first read many of the shareholders felt rather disappointed that it was a little too plain and amiable all round; but the resolution appointing the committee by the committee of the committee probably when that report was first read many of the shareholders that they should have done so. What he past history of the company, for it had been discussed over and over again at various meetings, and even if the committee had had the power to go into that matter it would not have been advisable or in the interest of the shareholders that they should have done so. What they had to consider was the course which they had submitted through one of the members of the board they had no idea that the American debenture-holders were going to make the proposals which they had submitted through one of the members of the board of the worki

ch

ent

ng

ne

on de,

ng

nd of

ew

rs,

X

suand blunt manner he answered me simply—"Have nothing to do with it." This reply, coming from one I regard as an authority, alarmed me very much, and from enquiries I have personally made on the spot I am afraid that we have made foolish speculations.

I should like to be told by some really good authority in reply to this letter that my fears are unfounded, but I am afraid it will be hard to induce me to believe that there is any hope of a return for the money expended. Poor old Cornwall is now, with but few honourable exceptions, in the hands of speculators who care nothing for the mine so long as they can re-sell their shares at a profit. Cardiff, July 20.

TAFFY

SILVER PEAK MINING COMPANY.

A special meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Tuesday, Mr. T. E. FOAKES in the chair.

Mr. M. PHILLIPS (the scoretary) read the notice convening the meeting. The reports of the directors, of the committee of enquiry appointed on Dec. 21 last, of Messrs. Rickard Bros., and of Mr. Joseph Taylor, were taken as read.

The CHAIRMAN said, as the meeting was soperation of the committee of enquiry appointed on Dec. 21 last, of Messrs. Rickard Bros., and of Mr. Joseph Taylor, were taken as read.

The CHAIRMAN said, as the meeting was convened imprimits for the port that they might desire, and after that he would state the committee to make any observations in reference to their report that they might desire, and after that he would state the committee when the heating would be such as the committee to make any observations in reference to their report that they might desire, and after that he would state the committee when the heating would be sire, and after that he would state the committee to make any observations in reference to their report that they might desire, and after that he would state the committee when the sixth line amount of such the desired was a persent on each such the first of a turther 30 per cent. of the denotree when the same proportion as those who were providi

coming.

The board this behaved that the subscriptions offered would be forthoming. CARTER added that the application forms could only arrive in England at
the earliest on the following day. As their representative he had already stated
in his printed letter that the money would be subscribed.

The amendment proposed by Mr. CARTER was seconded by Mr. H. E. TAYLOR,
and adopted with only three dissentients.

On the motion of Mr. SEKLI, seconded by Mr. JENKINS, a cordial vote of
thanks was passed to the committee.——The meeting then closed.

THE CHONTALES MINING COMPANY.

The ordinary meeting of shareholders was held at the offices of the company, Gresham House, Old Broad-street, on Thursday,
The Right Hon. Earl Nelson in the chair.

Mr. J. JAMESON TRURAN (the secretary) having read the notice

For example, and the property of the control of the property of the control of the property of the control of the property of onvening the meeting,

The Chairman said that this was not a regular business meeting,

large, he did not think the country was a wet one, and the amount of pumping required would be small to 10 fms. at all events. The Consuelo bett ithey had taken up was a continuation of the same lode, and it was possible that after driving through this paying shoot; in fact, it was usual, they would come to a bar of barren ground, but they would have only the cost of driving, and he thought it was extremely unlikely that a mine which produced gold at 10 ozs. per ton would be barren further on unless there was an entire change of formation. He went carefully over the surface, and could not find any change, and therefore he thought they would reach other paying shoots equally rich. With regard to the opening of other mines, it would undoubtedly be desirable to do so, but "a bird in the hand was worth two in the bush," and when they had a good mine opened he thought unless they had a very large capital it was not desirable to spread their money about too much. He had the greatest confidence in Captain White. He saw him at a time of great difficulty, when perhaps he was not so well known and appreciated by the shareholders in general as he was now. At the time he saw what man they had, and he thought on this point they should write out to Mr. White suggesting the opening of the other mines, and if he thought the time was not yet rips for it he had no doubt Mr. White's opinion would receive the weight he was sure it deserved.

A vote of thanks was passed to Captain White, and also to the Chairman and directors, and the proceedings then terminated.

INDIAN TREVELYAN GOLD MINING COMPANY.

INDIAN TREVELYAN GOLD MINING COMPANY.

An extraordinary meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Tuesday, for the purpose of confirming the special resolutions passed at the meeting held on the 9th inst.,—Mr. Malcolm Low, J.P., presided.

Mr. H. LYON (the secretary) read the notice convening the meeting. The Chairman said, gentlemen, it will be in your recollection that on July 9 we met together and fully discussed the resolutions which you have just heard read. Since then the Indian Glenrock Company has held its first special meeting, and passed the corresponding resolutions for that company. As the whole matter was so thoroughly discussed and considered before being passed at our first meeting I feel that it would be quite unwarrantable to take up your time by making any speech on this occasion. I will, therefore, simply formally propose that these resolutions be now and hereby are confirmed:—

making any speech on this occasion. I will, therefore, simply formally propose that these resolutions be now and hereby are confirmed:—

1. "That this company be wound-up voluntarily."

2. "That Mr. Malcolm Low, one of the directors, and Mr. Henry Lyon, the secretary of the company, be appointed liquidators of the company for the purpose of such winding-up."

3. "That under the provisions of section 161 of the Companies Act, 1862, an agreement dated June 21, 1832, between this company of the one part, and the Indian Glenrock Gold Mining Company (Limited) of the other part, for the amagramation of the two companies on the terms of that agreement, and the sale and transfer of the assets and business of this company to the said Glenrock Company in consideration of that company undertaking as therein expressed all the debts and liabilities of this company and issuing for distribution among the shareholders of this company (other than the Glenrock Company) who hold 25,144 shares) 124,356 shares in the Glenrock Company be confirmed and carried into effect, and that the liquidators of this company may be at liberty to receive for distribution among the shareholders of the same (other than the Glenrock Company) shares in the Glenrock Company in accordance with such agreement."

4.—"That the liquidators be at liberty to execute, enter into, and concur in all such deeds, agreements, and documents as they may consider necessary for the purpose of carrying the said agreement into effect, and may by agreement with the board of directors of the Glenrock Company modify the terms of the said agreement into effect, and may by agreement with the board of directors of the Glenrock Company modify the terms of the said agreement which the modified of such terms, and may carry out the agreement as so modified."

Co.! Howaid sand the hoped that as the liquidators would be at the mercy of the Glenrock Company and may any manner which she meeting had been specially convened.

Mr. Bladon should be placed before the board of the Glenrock

or hass came off and the fibre remained, and by this process they got rid of the gom in the fibre, which had hitherto been one of the great difficulties. It was afterwards bleached. Having some of the various kinds of teatile material into which the finished fibre was worked, Mr. Minchin said that both me as a process of treating the fibre by what was called. Erkend of the control to the carried by Meson and Erkend of the was a process of treating the fibre by what was called. Erkend of the which was being cetablished in Calicuit by Meson and oction.

This was a subject to the control of the control of the fibre, when highly dished, could be missed to consider the climate and soil of the Mammoth district a fibre of the great which was being control of the control of the fibre of the great of the control of the fibre which were we have virgin soil and suitable rains. It is the particular district where you can grow the fibre with the greatest possible alwantage. Referring to the gold industry, he said he did not admit that gold mining in the district where you can grow the fibre with the greatest possible alwantage. Referring to the gold industry, he said he did not admit that gold mining in the district was not going to succeed. He was perfectly sure finat the gold would come right in the end. He had a letter that morning from Mr. Thos. Laing, an old autarialm, miner, who stated he had no doubt the gold was there, and that hitherto the fault had been in the treatment of the ore.

The OKARIMAN: Do you think the better sorts of cinchona will thrive equally well?—Mr. Mr. Chris said that he had no doubt that one or two of the better will be matrix being not quarts but a sort of limestone calogar.

Mr. Acknorp and that when he entered the room had not think there was much hope for the Perseverance property, but with there was a fair prospect of the Chairman and Mr. Minchin he really to the shareholders—liquidation, or success. There were no neglors of the directors. Equidation would be suicidal poiling. He looked wi

COLORADO UNITED MINING COMPANY.

A special general meeting, called by the requisition of several shareholders, was held at St. Michael's Hall, George-yard, on Tuesday.

After some preliminary conversation, the chair was taken by Major-General the Hon. W. FIELDING, a director.

The CHAIRMAN said he was not going to take up their time with any unnecessary [talk, but in order that there would be no misunderstanding as to the absence of Mr. Fraser Rae, he would read a letter he had received from him this morning:—

letter he had received from him this morning:—

DEAR GENERAL FIELDING.—On returning from the United States and Canada, Hounds notice of a meeting of the Colorato United Company for July 24—that is, to-morrow. I have learned that an intimation of this was sent to me on the other side of the Atlantic, but owing to my salling sconer than I had intended I did not receive it. As it was, I had a previous engagement for two o'clock on July 24, and this engagement I hurried home to keep. Consequently, I cannot be present at the Colorado meeting to-morrow. Perhaps, in my unavoidable absence, you will be so good as to take my place. Your intimate acquaintance with what has recently been said and done about that company specially qualifies you for presiding over the meeting, and I hope that the facts which you are able to set before the meeting would exercise a due influence upon any unprejudiced and independent shareholders who may be present.

Believe me, &c., (Signed) W. Fraser Rae.

Reform Club, Pall Mail, S.W., July 23.

Believe me, &c., (Signed) W. Fraser Rae.

Reform Club, Pail Mail, S.W., July 23.

That explained Mr. Fraser Rae's absence. He thought it was only necessary to say one more word before leaving the requisitionists in possession of the meeting, and that was the reason why the directors would not call the meeting as desired by the requisitionists. This was twofold; firstly, in accordance with a wish expressed by a majority of shareholders Mr. Rickard, an eminent mining expert, was desired to report upon the mine on May 28 last, and they had been, he might say, in daily expectation for the last fortnight of his report. He was investigating the mine, and he was satisfied with the position of it, and they thought it would be far more satisfactory to the shareholders that they should have that report before them and discuss the whole question, then have several meetings. That was one reason. The other reason was—When the Chairman left the chair at the last meeting, having ruled that the resolution which was then proposed was irregular, the meeting was legally at an end. Certain gentlemen thereupon took upon themselves to rule that it was not so, and some one cles was elected to the chair. Resolutions which had been declared to be illegal by the company's solicitor were put to the meeting and passed. Immediately after that the self-constituted directors went to the offices of the company, called upon the secretary to give them over the books (which he declined to do), held a so-called meeting, informed the bankers that their signatures were to be honoured, and that those of the ex-director, as they were called, were not to be honoured, and that those of the ex-director, as they were called, were not to be honoured, and that those of the ex-director, as they were called, were not to be honoured, and that those of the ex-director, as they were called upon the secretary to give them, but had continued to honour the signatures of the directors as if no such notice had been given. He now called upon the requisitionists or an

meeting read.

The CHARRMAN: There is no Article in respect of that. They had been confirmed, following the precedent that had always been established in this and other companies of which he was a director. They were confirmed at the very

friend, following the precedent that had always been established in this another companies of which he was a director. They were confirmed at the very maxt board meeting.

Mr. BRANDON: Do I understand the board meeting confirmed the minutes of the extraordinary general meeting f——The CHAIRMAN: Precisely so.

Mr. BRANDON: Do I understand the board meeting confirmed the minutes of the extraordinary general meeting f——The CHAIRMAN: Precisely so.

Mr. BERTH then proposed the first resolution.

"That the present directors of the company, Mr. William Fraser Rae (Chairman), Major-General the Hon. Fielding, and Messra. Charles Francis Montresor and Andreas Holtz and J. H. Fitch (having failed to comply with the resolution of the company passed on Monday, May 25 last, calling upon them to resign the office of directors), be removed from such office forthwith."

Mr. BURTON seconded the resolution.

Mr. Ginson said they were tired of the do-nothing policy of the present directorate. They were heartily slok of both management and manager, and the chareholders wished to have a change of directorate, and also a new manager. He wished to see Mr. Hamill's place filled by Mr. Rickard.

Mr. BRANDON said: At the last, meeting when Mr. Fraser Rae was in the chair, the directors had promised to resign in the month of August, and he wished to know if they intended to keep faith with the sharcholders. If they did not, he thought the most conclusive reason had been given why they should not remain longer in office.

The CHARIMAN said the board were much dissatisfied with Mr. Hamill's conduct in not answering letters sent to him by the directors. The board was thus kept in the dark as to what he was doing. He had been successful in a mining point of view, but he had been found wanting as an administrative and executive official. He had, however, brought the mine from a state of absolute impenuities of the mine there was money for the payment of 1s. a share dividend. The whole of the dash work of the mine had been brought to a successfu directors. The pourt were control was a great difficulty about that, because he held 20,000 shares, and he had an agreement that he was to retain the management of the mine as long as he held that considerable interest in the company. The directors wished to appoint someone to act under him who should take the administrative and executive work, and keep the directors at home well acquainted with what was going on. Mr. Hamili had not yet fallen in with their views, but they did not despair of his doing so. The directors were willing to resign, but not to hand over their seats to those who would use the mine for stock-jobbing purposes. He might say that the board had sufficient proxies to defeat the elique who attacked and sought to supplant them. As regarded the mine, no one who knew anything about it could fall to appreciate its value. He had been there himself, and it was looked upon in that wonderfully rich district as marcial of hidden wealth.

as a marvel of hidden wealth.

Considerable discussion ensued, in the course of which Mr. Smyrn, Mr. Branpow, and others urged the directors to resign their offices, alieging that they
had lest the confidence of the shareholders.

Mr. ELLIS thought they could do better by endeavouring to devise some
means to put a check on Mr. Hamill's movements, if they could not remove
him, then by quarrelling among themselves.

The Chalman said he hoped that the views which had been expressed in regard to Mr. Hamill, when transmitted with a letter which was being prepared
by himself and Mr. Carnegy, would have a salutary influence with Mr. Hamill,
and result in good to the company.

After further discussion at considerable length, the Chalman put the
tion to the meeting and declared it carried result in good to the company,
five further discussion at considerable length, the CHAIRMAN put the resoluto the meeting and declared it carried by a show of hands, but stated that
oil had been demanded, signed by five shareholders. He fixed the poil to
place between the hours of one and three o'clock, on the 27th inst., at the
set of the company.

the company.

Brandon and Fitch were appointed scrutineers.

Brandon and Fitch were appointed scrutineers.

These was then proposed that "Messrs. Thes. Waddell Burton, T. Steven

Lindsay, James Stratton Thompson, Archibald Jackson Smyth, and Carl Hein-rich Trincia be elected directors of the company."
This resolution also gave rise to much discussion, Mr. Frich contending that it was illegal. It was, however, ultimately put by the Chairman and carried, but a poll was demanded and fixed for the same time and place as in the case of the previous resolution.

ious resolution.
of thanks to the Chairman, on the motion of Mr. Brandon, seconded MYTH terminated the proceedings.

THE BENGAL AND BERAGUNDA COPPER COMPANY.

THE BENGAL AND BERAGUNDA COPPER COMPANY.

An extraordinary general meeting of shareholders was held at St. Michael's Hall, George-yard, on Wednesday,

Sir John Swinbourne, Bart., presiding.

Mr. G. Whinney (the secretary) read the notice convening the meeting, together with the minutes of the previous meeting, which were confirmed and signed by the Chairman as correct.

The CHAIRMAN: This meeting, gentlemen, has been called in compliance with a request of Messrs. Bird and Co., who, I may say, have the confidence of the great bulk of the shareholders. They are resident in India, and, conjointly with their personal friends there, hold nearly one-third of the subscribed capital of the company. After mature consideration, and having consulted our solicitor on the subject, we have come to the conclusion to recommand to you the resolution which has been sent to you all.

Mr. ANDERSON thought it desirable to hear something in reference to the development of the company before proceeding to pass any resolution.

The CHAIRMAN, in reply, stated that there were three shafts in the property, and one of them was 26 ft. deep, the other one being but recently begun. The rains had set in about the 15th of last month, but the engineers had secured their shafts so that they could go on sinking them during the rainy season. They were about 19 miles from a railway station, and now that the country was in a flooded condition they could not get the machinery across to the mine for some time. In the meantime, however, they were gradually working down the shaft. The engineers had been at work only 3½ months, so that a yet much could not be expected in the way of development. They had been building a house to receive the Europeans, and it was now so far completed that a portion of it could be inhabited, it having been thatched and plastered. The last letter from the property said that everything was going on prosperously.

Mr. Anderson suggested the adjournment of the meeting for three months, pending further information from the mine

The Chairman said that was really the object of the proposed alteration in the Articles.

Mr. Dionam then formally moved—"That the amount to be received by the directors should be 8001., to be appropriated among them in such a way as they see fit, in pursuance of Clause 63 of the Articles of Association."

Mr. JOHN ATKINSON seconded the motion.

The CHAIRMAN then moved, and Mr. Nokes seconded, "That the remuneration of Messrs. Bird and Co., the company's agents in Calcutta, from the date of the incorporation of the company, in 1883, until otherwise fixed by the company in general meeting, be fixed at the sum of 250 rupees per month, together with the amount of 2½ per cent, on the sale of the gross proceeds of all minerals raised by the company, such remuneration to cover all charges for office and establishment, but not to include books and stationary, which should be furnished by the company, as well as the travelling expenses of the agents and their servants."—The motion was unanimously agreed to.

The CHAIRMAN then proposed the resolution on the printed circular calling the meeting, altering the Articles of Association to facilitate the transaction of the company's business between India and this country.

The motion having been seconded by a SHARRHOLDER, it was agreed to. General Abbort proposed a vote of thanks to the Chairman, who briefly replied, and the proceedings terminated.

THE ORGANOS GOLD MINES.

An ordinary general meeting of shareholders was held at the Cannon-street Hotel, on Friday, 20th inst., there being present 41 shareholders, representing over 7000 shares.

Mr. ALEX. FOWLER in the chair.

Mr. A. RUSSELL (the secretary) read the notice calling the meet-

Cannon-street Hotel, on Friday, 20th inst., there being present 41 sharcholders, representing over 7000 shares.

Mr. ALEX. FOWLER in the chair.

Mr. A. RUSSELL (the secretary) read the notice calling the meeting, and the report and accounts were taken as read.

The CHARIMAN said: Gentlemen,—As the directors' report, like a Queen's Speech, only touches in a cursory manner upon the business in hand, I hardly think it necessary to refer to it beyond saying that it gives you in brief a history of the company from its commencement down to the present time. Under these circumstances, I will ask you to turn as once to the balance-sheet, and after explaining such of the items there, about which it may strike me you may like further information, I will tell you of our present position, and then refer briefly to our prospects. If, then, you turn to the credit side of the balance-sheet, the first items which call for attention are the preliminary expenses and the debenture charges, and these, I think you will agree with me, are, in proportion to the capital and the amount subscribed, exceedingly low. Speaking for myself, I do not know of any company feated to successfully at so moderate a cost. The next item is which call for attention apas, buddles, &c., a drum and rails for our incline tramway, carpenters' and smiths' and miners' tools, and other things too numerous to mention. Following the cost of machinery, we find the them of expenditure, which may almost be said to be the most important in our balance-sheet, which may almost be said to be the most important in our balance-sheet, which was a summary of the contract of machinery, we find the them of expenditure, which may almost be said to be certain, and we think we are now on the catcular point of attaining. I refer to the freight and carriage of machinery, 33551, is, 2d., which, with the cost of mules, 932, 5s. 10d. (and this item might have a summary of the machinery to the mine that your directors and the machinery to come on later, and when he arrived at Honda years, amount to another manuals. It is also the start of the start of

I refer to the circulars which have recently been issued about our affairs. These circulars are of a most grossly personal character. It is, however, my intention to avoid personalities in my remarks as far as possible, and I shall, therefore, only refer to one or two points in these circulars, asking you to base upon these your opinion of the whole. To begin with, the writer says he has never held, sold, or bought a share in this company. Then what, gentlemen, is the reason of the issue of these circulars? How does our business concern the party referred to? I think you will see in these circulars (mention made of certain gentlemen whose names are underscored. It appears to be no more than a personal attack—an attack which I understand has also been carried on against other companies in which the gentlemen referred to have been interested. As regards the bons fides of the advice given to you, let me point out that it is suggested to every shareholder that he should sell his shares all at once. If such advice were followed it would bring the shares down in price to practically nothing, and you, whom it is proposed to benefit, would lose largely. To take another point, it would remind you in one of the circulars much is made of the fact that the Beuna Ventura level was stated that it had again cut rich. Gentlemen, the Buena Ventura level is the richest, and always has been the richest, level in the mine. Again, much is made of the fact that a part of the reserves have been lost by the crushing in of the Esperanza level; but, on reference to that plan you will observe it is a matter, though inconvenient, of but little real importance. At the point where the level fell in it was within 40 or 50 ft, of surface, and you can, therefore, imagine, how little has been the loss of the reserves. As regards the holders of shares, I may mention that I do not consider you of I have a right to question the private business of others. I can tell you, however, your directors are amongst the largest shareholders in the company,

or to give you any information you may require. (Cheerz.)

A Shake wown is I have pleasure in seconding that.

A Shake wown is I have pleasure in second in the content of the content of

the shareholders to advance from 3s. to 4s. per share upon our present holdings for the purchase of new stamps.

Mr. F. F. Wilson: I suggest before spending more money upon fresh stamps we should open up more ground for the 1s stamps.

The Oliairman side he could explain that. There had been a great deal of work done, which he would mention. The Roda level had been driven 81 fms., the Esperanza 91 fms., the Buena Ventura 71 fms., and the James's lode 14 fms. but the best of these levels are the Esperanza and the Buena Ventura, and as the former of these had temporarily caved in only the latter was available for taking away the quarts. When opened a little further there would be room for more than 50 stamps. (Hear, hear.)

Mr. F. F. Wilson said he had been to the office of the company in order to see the report of the manager, but had never been allowed to see anything but extracts.

extracts.

The CITAIMMAN said it was not usual for directors to expose all the reports, and the shareholders would see the inconvenience of exposing everything, but the secretary was exceedingly willing to explain everything, and he had never heard any complaint upon that point. As far as he was concerned he should be only too glad for the secretary to give the fullest information possible.

Mr. P. F. WILSON: I do not want the secretary's information, I want to see the reports. I do not want Mr. Russell's transcripts.

The SECRETABLY: They are no transcripts; they are extracts from the managers' reports, copied word for word.

The resolution for the adoption of the report and accounts was then put and carried unanimously.

The resolution for the supports of the framework of the carried unanimously.

The CHAIRMAN; I am much obliged to you for the harmony which has prevailed, and I am much obliged to you for asking these questions; I shall take care that anything which you require in reason shall be supplied to you.

Mr. VIVES suggested that in future the names of the directors and the addresses should be given at the head of each report. Referring to the debentures,

he said that as there was every prospect of the company being a great success he thought that 15 per cent, was too much to pay for the debentures.

A SHAREHOLDER: Not for a mine in South America.

Mr. VIVES: We are in London.—The SHAREHOLDER: But the mine is in South America.

Mr. VIVES: We are in London.—The SHAREHOLDER: But the mine is in South America.

The CHAIIMAN said a higher rate of interest was usually paid upon the depentures of a mine than upon any other form of scourity, and particularly upon a gold mine, because it was a very fluctuating kind of property; and, therefore, to induce people to come forward with money it was necessary to offer a high rate of interest on the debentures when they were issued. If the property came up to the expectations formed of it in a very few years they would be able to pay off those debentures; and in that case they would have the advantage of having only the small capital of about 15,000t. to pay dividends upon. (Hear, hear.) If their cancelled; and that was one reason why the directors had issued shares instead of debentures the shares could not have been included in that was one reason why the directors consider it expeptions to issue debentures instead of shares.

The CHAIRMAN said the next business was the election of auditors. The present auditors had bestowed very great attention in putting the different home and foreign expenditures in their proper position.

Mr. Zalamsson proposed the re-election of Messrs. E. A. Harvey and Co., public accountants, as auditors.——A SHAREHOLDER seconded the motion, which was carried.

Mr. Zalmanson proposed the re-election of Messys. E. A. Harvey and Co., public accountants, as auditors.—A Shakhholder seconded the motion, which was carried.

The CHAIRMAN: With regard to the names of the directors being given on future reports, the directors are modest people, and do not like to see themselves very much in print, but, as you wish it, the names shall be given in future.

Mr. F. F. Wilson: I may say I have private advices from the other side, and I hear that the discovery in the Buena Ventura levels is very important. It was just touched upon in the last report. (Hear, hear.)

The CHAIRMAN, in reply to Mr. Vivas, said that the amount of debentures ordered to be issued was 10,002, but at present only 3532. 15s. had been issued. If the circumstances required it, the directors would issue more of the debentures.

Mr. Bental: I propose a vote of thanks to the Chairman for the straight-rward manner in which he has conducted the business, and the way in which

forward manner in which he has conducted the duminess, and the way in which he has answered our questions.

Mr. Zalmanson seconded the motion, which was carried.

The Chairman: I feel extremely grateful to you. I assure you it is one of the greatest pleasures I have had for a long time to find such a unanimous meeting; and although questions were asked, they were asked in that very nice gentlemanly way that it was a pleasure to hear them. No doubt my brother directors, are of the same opinion.—The proceedings then terminated.

NEW VAN CONSOLS AND GLYN MINING COMPANY.

The general meeting of shareholders was held at the City Terminus Hotel, Cannon-street, on Tuesday,
Mr. PRYCE JONES, the Chairman, presiding.
Mr. JAMES COOPER (the secretary) read the notice convening the meeting, and the report was taken as read.
The CHAIRMAN said the shareholders had a full and detailed statement of the report and seconts before them. He had not had Mr. JAMES GOOFER (the secretary) read the notice convening the meeting, and the report was taken as read.

The Chairman said the shareholders had a full and detailed statement of the report and accounts before them. He kad not had any considerable hand in compiling the report and statement of accounts, although he had been consulted in the matter; but he and the other directors had given most valuable time to the interests of this company. They had not received that reward which the directors and the shareholders generally who had embarked their money in this enterprise might have naturally and reasonably expected, but they could not make ore, neither could they preciet what it was in the future. They had, however, done their best, and he was much indebted to his colleagues for their exertions and attention to the business of the company. He would deal with the report very briefly, because the scheme was so well known that it would not be necessary for him to refer to it at any great length. The object was to make all to raise appliat to energy on the mine, and to pay off any debenture holders who would not accept shares in lieu thereof. He had no doubt they had all studied the question, and were, therefore, able to understand its bearings. Since they met last they had made a change of management—a duty that was very likeome to the directors individually, and, no doubt, alse to some of the shareholders—in the case of an old servant of 30 years' standing in this property of theirs. However, the duty had to be performed any tast great confidence. It was always better to have a good captain—one who had a love for his work, and a belief in the success of the work in which he was engaged, and Capt. Veroce had the belief that he had a really good mine to work, and a constitution of the last the months, he repretted to say, had resulted in discounting the misfortunes they had been trammelled with—that the indebtedness, as far as the old company was conserned, should have been whyed off to 56, was a matter of congratul

western direction of the mine.

Mr. TAYLOR said the board had been liberally supported by the shareholders, and they could not have been treated worse.

The CHAIRMAR said he had one-fifth of the whole shares of the company, and Mr. Rock came forward atja critical time and put down 1500 sovereigns to support bim and to save the company.

Mr. PETRIE said he thought they might challenge any company in existence as to the honesty and integrity with which it was being carried out.

Mr. TAYLOR thought the directors should loosen their hold of the debentures. He disclaimed any intention of attacking Mr. Rock.

The CHAIRMAR said he would move—"That the report of the directors and the statement of accounts made up to April 30, 1883, be and hereby are received and adopted."

The resolution was seconded and carried unanimously.

The CHAIRMAR next moved, and it was seconded by Mr. PETRIE, and agreed to without opposition, "That the balance of the debt of the revenue account be transferred to the accounts of the mines."

The CHAIRMAR moved, and Mr. TAYLOR seconded, that Mr. W. T. Ansell Ansell, her retring director, be re-elected, which was carried unanimously.

Mr. PETRIE their proposed "That the directors be requested at the expiration of one month from this date to forfeit all shares upon which the payment elsey be requested to take legal proceedings to recover the arrears against such shareholders as they may deem expedient.

Mr. TAYLOR seconded the resolution, which was agreed to nem. dis.

A vols of thanks was passed to the Chairman, and the proceedings terminated.

THE MANGANESE BRONZE AND BRASS OMPANY.

THE MANGANESE BRONZE AND BRASS OMPANY.

The first ordinary annual general meeting of shareholders was held at the offices of the company, Walbrook, on Wednesday,

Mr. W. COLCHESTER, the Chairman, presiding.

The SECRETARY read the notice convening the meeting, and the report was taken as read.

The CHAIRMAN, in moving that the report and balance-sheet be received and adopted, said: I may as well at once inform you that your directors were disappointed on taking possession of the business that the progressive development ceased. The patentee, Mr. Farsons, pointed out that the trade hitherto had been mainly supported by the development of the trade in sorew propellers for ocean going steamers of large size, and that the preceding half-year had brought an unsual demand for the metal for this purpose, both at home and abroad, and that this trade was liable to fluctuation. He recommended us to immediately erect works for the manufacture of articles for which this metal is peculiarly adapted, and to expend at once about 20,000? In erecting the necessary machinery. Your directors gave this proposal great consideration; but it was considered more prudent to abstain from all outlay on machinery, and endeavour to get various articles made for them, even at cost of bosing a great part of the profit thereon. Having gradually felt our way we think it is full time that we should have a foundry large enough to do as much of our work as the business requires, and we are in treaty for the lease at 21 years of most desirable premises on the Thames, at a rent of 270%, a year,

the landlords being the London Corporation. This will give us all the premises we are likely to require for many years to come, and plenty of room to put up any machinery the requirements of business may render necessary. I hope also we shall be able to let off part of the premises, so as considerably to reduce the rent. The report mentions that we have received an order for a block of metal for a plece of ordnance, and I am happy to say it is for the Italian Government. Mr. Parsons assures us we can under pressure cast a gun that will be superior to the Ukatius metal of the Austrian ordnance, and if this proves true we shall be able to develope a trade that will have a marked effect on our dividend. With order to our balance-sheet, the shareholders will understand that in 'aking over the business there are many expenses that must be incurred the first year to house the outlay in removing the present plant and erecting new furnease. I am not so sanguine as to suppose that we shall be able to thrust our metal into new channels without a good deal of labour and expense; but I do think we may considerably look forward to a successful future. No exertions will be spared by your executive to make our new foundry perfect, and we hope to think we may considerably look forward to a successful future. No exertions will be spared by your executive to make our new foundry perfect, and we hope to do that which is required without making a call upon the shareholders. I canassure you that I shall require to have all the outlay for the new machinery, well considered, for I know from experience that every increase in capital renders a large dividend more difficult. The Gorana concluded by moving the adoption of the report.

Mr. GARDINER objected to the amount of the expenditure, which he said was expenses written off was too large. He though the amount of 1516. I.Sa. Mr. Parsons assures us we can under received an adopted; that the preliminary expenses be reduced for the outland increased from 3 to 10 per cent., to be made fro

SAMUEL OSBORN AND CO.,

CRUCIBLE STEEL

Of all descriptions of special strength and solidity.

ALSO, MANUFACTURERS OF

BEST CAST STEEL FOR ENGINEERS AND MINERS' PURPOSES; FILES; SAWS; HAMMERS; RAILWAY SPRINGS, &c.

STEEL SHEETS AND FORGINGS.

R. MUSHET'S CELEBRATED EXTRA BEST

TITANIC CAST STEEL FOR BORERS,

And of R. Mushet's Special Steel for Lathe and Planing Tools and Drills, THE STEEL WHICH REQUIRES NO HARDENING.

CLYDE STEEL AND IRON WORKS, SHEFFIELD.

FRANCIS MORTON AND CO., LIMITED, LIVERPOOL.

GALVANISED CORRUGATED IRON ROOFS, BUILDINGS, AND SHEDDING,

WHICH THEY HAVE EXTENSIVELY ERECTED FOR THE REQUIREMENTS OF Forges, Rolling Mills, Puddling Sheds, Ironworks, and Collieries



Erected Complete in this Country, or prepared to Plan for Erection Abroad, GALVANISED OR PAINTED CORRUGATED IRON ROOFING PLATES and TILES. HEAVY CORRUGATED IRON PLATES for fireproof floors, roadways, parapets, &c. (for producing which F. M and Co. have recently laid down powerful Hydraulic Machinery). Wrought-iron Tanks, Guttering, and General Constructional Wrought Ironwork.

DESIGNS PREPARED, AND ILLUSTRATED DESCRIPTIVE CATALOGUES FORWARDED

DESCRIPTIVE CATALOGUES FORWARDED

GENERAL STORE FOR WHARF, ETC

ON APPLICATION London Office: 1, Delahay Street (first door out of Great George Street), Westminster, S.W.

BORLAND'S PATENT INJECTOR.

SEE THE ENGINEERING PAPERS.

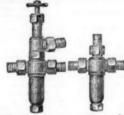
The cheapest and most economical.

Can be cleaned in a few minutes.

All parts made to gauge.

Made entirely of best gun metal.

Is the smallest and neatest.



Has no moving parts. Will not shake off.

Has the most rapid delivery.

No joints to make.

Prompt and continuous action

S. BORLAND, Mansfield Chambers, St. Ann's Square, Manchester, (Late Manager for Sharp, Stewart, and Company, Limited, Atlas Works, Manchester. Upwards of 22 years with that firm.) Price Lists, Particulars, References, &c., on Application.

MANCHESTER WIRE WORKS.

NEAR VICTORIA STATION, MANCHESTER (ESTABLISHED 1790).

Manufacturers by STEAM POWER of all kinds of Wire Web, EXTRA TREBLE STRONG for

LEAD AND COPPER MINES.

Jigger Bottoms and Cylinder Covers woven ANY WIDTH, in Iron, Steel, Brass, or Copper. EXTRA STRONG PERFORATED ZINC AND COPPER RIDDLES AND SIEVES.

PERFORATED IRON, STEEL, COPPER, AND ZINC PLATES IN VARIOUS DIMENSIONS AND THICKNESSES Shipping Orders Executed with the Greatest Dispatch

AND SONS, THOMAS TURTON

MANUFACTURERS OF MINING STEEL of every description.

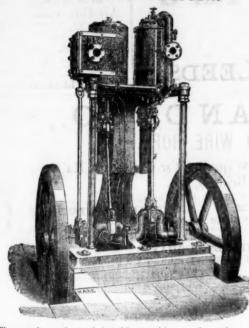
CAST STEEL FOR TOOLS. CHISEL. SHEAR. BLISTER, & SPRING STEEL! MINING TOOLS & FILES of superior quality.

EDGE TOOLS, HAMMERS, PICKS, and all kinds of TOOLS for RAILWAYS, ENGINEERS, CONTRACTORS, and PLATELAYERS LOCOMOTIVE ENGINE, RAILWAY CARRIAGE and WAGON SPRINGS and BUFFERS. SHEAF WORKS SPRING WORKS, SHEFFIELD.

LONDON OFFICES-90, CANNON STREET, E.C. PARIS DEPOT-12, RUE DES ARCHIVES. BOSTON, MASS., U.S.-40, KILLY STREET.

M

"Champion" Rock-borer AND AIR COMPRESSOR.



The work performed by this machinery, through some of

the hardest rock, proves its great value.

In Cornwall, irrespective of the work done by the "Champion" Rock-borers purchased by various Mines, the drivage, rising, stoping, and sinking on the proprietor's own contract work, amounts to over 940 fathoms.

The wood-cut represents one of these Air-Compressors. Four of them, of three different sizes, can be seen, at work, in about an hour's walk through the Camborne Mining Dis-

R. H. HARRIS,

ENGINEER,

63, QUEEN VICTORIA STREET, LONDON.

ALEXANDER SMITH, M. Inst. C. E., CONSULTING A ENGINEER and VALUER of IRONWORKS,
MINING, RAILWAY, ENGINEERING, and other PROPERTY,
PLANT, and MACHINERY,
PRIORY STREET, DUDLEY

4, BURLINGTON CHAMBERS, NEW STREET, BIRMINGHAM

Mr. SMITH has been retained for nearly 20 years by some of the most prominent firms, and has conducted many of the largest valuations that have taken place in the kingdom. Valuations for Stock Taking or any other purpose upon very

ENGINEERING EXHIBITION, AGRICULTURAL HALL, ISLINGTON, LONDON, JULY, 1833. STAND NO. 79-BAY.

PHILLIPS' MONTHLY MACHINERY REGISTER.THE BEST MEDIUM IN THE KINGDOM FOR THE

PURCHASE OR SALE

NEW OR SECONDHAND MACHINERY

Supscription, 4s. per annum, post free.

PUBLISHER AND PROPRIETOR CHARLES D. PHILLIPS, NEWPORT, MON

CALIFORNIAN AND EUROPEAN AGENCY.
509, MONTGOMERY STREET, SAN FRANCISCO, CAL.
J, JACKSON, Manager.

M. R. P. S. HAMILTON (late Chief Commissioner of Mines for the Province of Nova Scotia), PRACTICAL GEOLOGIST, MINING AGENT, and MINING ENGINEER, HALIFAX, NOVA SCOTIA. PURCHABES and SALES of MINING PROPERTY effected, with careful re-gard to the interests of clients,

HERBERTON (WILD RIVER) TIN LODES, NORTH QUEENSLAND.

Every information relative to the progress of lode-tin mining in the Wild River district (termed by geologists "The Cornwail of Australia") can be obtained by communicating with the undersigned.

"Herberton Advertiser" Office, Herberton, September, 1882.

T. C. KITTO,

PRACTICAL GEOLOGIST AND MINING ENGINEER

Who has had great experience in the Gold Mines of Brazil, California, and Autralia, having recently examined the Gold Fields of the TRANSVAAL, is prepared to furnish Reliable Reports as to their value.

All kinds of Mineral Deposits carefully examined and properly estimated Apply: LULWORTH HOUSE, GUNNERSBURY

MINING ENGINEER.

ALEX. DEL MAR,

Mining Engineer, late Director of the United States Bureau of Statist
Mining Commissioner for the United States Monetary Commission &c
216, SANSOME STREET, SAN FRANCISCO.

Cable Address: "Delmar, San Francisco."—Branch Offices: 61, Broadway,
New York; and 77, Cornbill, London, E.C.

Particular attention paid to Hydraulic Mines and Mining Machinery.

Particular attention paid to Hydraulic Mines and Mining Machinery.

JOHN ROBERTSON, F.S.A., MINING AND CONSULTING ENGINEER, LAS VEGAS, NEW MEXICO.

Mines and Mining Claims carefully examined, Assays made of their Ores, and reliable Reports furnished.

Mining Properties bought and sold on commission. Has special facilities for inspecting properties in Mexico.

Meferences by permission: —L. P. Browne, Esq., Las Vegas, New Mexico; Don F. A. MARZAPARES, Las Vegas, New Mexico; His Excellency H. M. Hoyr, Governor of Pennsylvania, Harrisburg, Pa.; H. S. PIERCE, Esq., Banker, Scranton, Pa.; N. H. SHAFER, Esq., Cashier Third National Bank, Scranton, Pa.; E. B. BYUBGES, Esq., Attoney-at-Law, Scranton, Pa.; E. W. WESTON, Esq., General Agent Delaware and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Baronet, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Baronet, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Hon, Bir John F. Claere, Honger and Hudson Canal Company, Providence, Pa.; Honger and Hudson Canal Company, Providence, Pa.; Honger

TO PARENTS AND GUARDIANS.

ELIGIBLE OPPORTUNITY is now offered for the . 6ETILEMENT of an ACTIVE YOUNG GENTLEMAN IN CANADA. Fill be enabled to obtain his profession as a Solicitor in five, or if he be a Grace in three years Cost of living about £150. In the meantime he will have e work, and obtain a knowledge of the Dominion, which is destined to be one of the most prosperous of the Colonies. Premium, £100 sterling, HERBER C. JONES,

Wellin ton-stree Toronto. Canada Land and Loan Agency.

32, Wellin ton-stree Toronto.

SMALL ENOUGH TO CARRY IN THE POCKET ANEROID CASE,

PRACTICAL HYPSOMETRY: A Method of DETERMINING TTUDES (Heights of Mountains and Depths of Mines) accurately and antaneously, with the Aneroid Barometer, WITHOUT TABLES

Price One Shilling, post free
Lendon: MIRING JOURNAL Office 26 Floot-street, E.C.

CLAYTON AND SHUTTLEWORTH, STAMP END WORKS, LINCOLN, AND 78, LOMBARD STREET, LONDON.

for Portable and other Steam Engines since 1863, and Prizes at every Meeting at which they have competed since 1849.



Steam Engines, portable & fixed

(For Coals, Wood, Straw, and every kind of Fuel

Thrashing Machines. Straw, Corn, and Hay Elevators. Chaff Cutters for Steam Power. Grinding Mills. Saw Benches. Traction Engines, &c.

GOLD MEDALS AND OTHER PRIZES have been awarded to CLAYTON AND SHUTTLEWORTH at all the importange international and Colonial Exhibitions, including LONDON, 1851 and 1862; PARIS, 1855, 1867, and 1878; VIENNA, 1857, 1866, and 1873

Catalogues in English and all European Languages free on application.

NOTE .- To insure deliveries in time for the next season, C. and S. beg their Foreign and Colonial Friends will not delay giving their orders.

LONDON -1862.

CHILI-1878

ESTABLISHED 1848. W. BRUNTON AND CO.,

43, Cornwall Buildings, Queen Victoria Street, London,

ALL KINDS OF SAFETY FUSE.

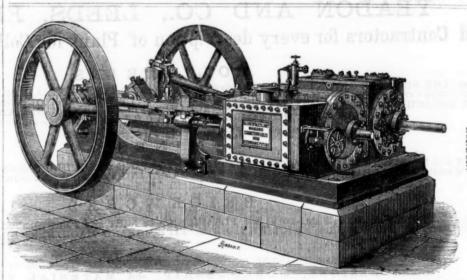
SILVER MEDAL (HIGHEST AWARD), MELBOURNE EXHIBITION, 1881, for "EXCELLENCE OF MANUFACTURE."

orks: Penhellick Safety Fuse Works, Redruth, Cornwall and Cambrian Safety Fuse Works, Wrexham, North Wales, LIVERPOOL OFFICE-8A, ALBERT BUILDINGS, PREESON'S ROW.



MELBOURNE-1881





STREET, CHARING

JOHN MARSDEN,

MANUFACTURER OF Air Tubing and Improved Brattice Cloth,



Tarred, Oiled, and Non-Inflammable. THE OILED CLOTH IS ESPECIALLY RECOMMENDED FOR DAMP MINES, AND 18

ALSO A GOOD COVERING FOR SHEDS. THE NON-INFLAMMABLE FOR THE MORE DANGEROUS MINES.

Samples and prices free, on application at the Works,

VARLEY STREET, OLDHAM ROAF, MANCHESTER.

SOLE MANUFACTURER OF PACKING FOR ENGINES, PUMPS, &c., and STEAM HAMMER RINGS

POTENTITE.

This unrivalled Explosive, as manufactured by the New and Perfected Machinery of the Company, is perfectly safe for transit, storage, and use, and is employed in every description of Mining or Quarrying Work, for Tunnelling, Pit Sinking, Engineering Work, and Submarine Operations, with the most complete success and satisfaction.

Potentite does NOT contain its own MEANS OF IGNITION, is free from Nitro-Glycerine, and its SAPETY has been specially

constrated by public experiments. Its strength is unequalled.

In action it gives off neither flame, smoke, nor offensive smell By its use labour is economised, as work can be resumed immediately after the shot is fired. POTENTITE is specially adapted for export to hot climates, as it is unaffected by heat, and is free from dangerous exudations.

POTENTITE IS THE SAFEST STRONGEST, AND WORK FOR WORK, CHEAPEST EXPLOSIVE IN THE MARK

For particulars and prices, apply to the-POTENTITE COMPANY, LIMITED. HEAD OFFICE-3, FENCHURCH AVENUE, LONDON, E.C.

N.

TH

d

rs.

Pumping Engines
for
Mines, Water Works,
Sewage Works,
and
General Purposes.
CATALOGUES ON

PUMPING & MINING MACHINERY.

HATHORN, DAVEY, & CO., LEEDS.

Hydraulic Pumps.
Winding Engines.
Air Compressors.
Man Engines,
Capstans,
&c., &c.

APPLICATION.

September 1

R. S. NEWALL AND CO.,

SOLE PATENTEES OF UNTWISTED WIRE ROPE.

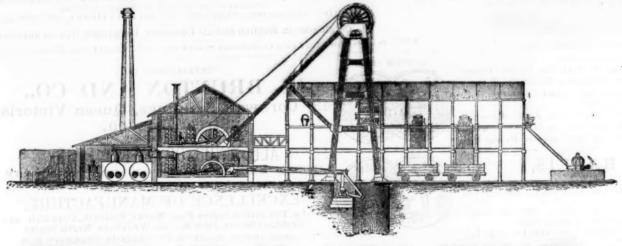
Iron and Steel Ropes of the highest quality for Collieries, Railways Suspension Bridges, &c.

PATENT STEEL FLEXIBLE ROPES AND HAWSERS.

IRON STEEL, AND COPPER CORDS. LIGHTNING CONDUCTORS.

COPPER CABLES of high Conductivity for Electric Light and Power.

London: 130, STRAND, W.C. Liverpool: 36, WATERLOO ROAD.
Glasgow: 68, ANDERSTON QUAY.
MANUFACTORY: GATESHEAD-ON TYNE



YEADON AND CO., LEEDS, ENGLAND,

Engineers and Contractors for every description of Plant for Collieries, Mines, and Brickworks.

COLLIERIES.

WINDING, HAULING, AND PUMPING ENGINES; AIR COMPRESSORS; DIRECT-ACTING STEAM PUMPS; VENTILATING FANS; SEMI-P()RTABLE BOILERS AND ENGINES COMBINED; PIT-HEAD PULLEYS; WIRE ROPES; WROUGHT-IRON HEAD GEAR, CAGES, and SCREENS; BOILERS PATENT DETACHING HOOKS; COAL WASHING MACHINES; STEAM HAMMERS; STEAM CAPSTANS; PUMPS; VALVES.

PATENT BRIQUETTE MACHINES (for Compressed Fuel).

MINES.

CORNISH CRUSHERS and STAMPING MILLS; WATER WHEELS; REVOLVING and OTHER SCREENS; BLAKE'S ORE CRUSHERS; JIGGERS; BUDDLES; ORE-WASHING MACHINES; GRINDING and AMALGAMATING PANS; WELL-BORING MACHINERY; WIRE TRAMWAYS.

BRICKWORKS.

PATENT BRICK MACHINES for DRY, SEMI-DRY, and PLASTIC CLAY; WET and PERFORATED CLAY GRINDING PANS; CLAY ROLLS; PUG MILLS; MORTAR MILLS; FRICTION HOISTS; PIPE-MAKING MACHINES; BRICK PRESSES; PATENT KILNS.

PLANS, SPECIFICATIONS, AND ESTIMATES FOR COMPLETE PLANTS ON APPLICATION.

BEST DESIGNS, WORKMANSHIP, and MATERIAL THROUGHOUT.

N.B.—Experienced workmen sent out, if required, to Erect or Manage. Considerable Saving in Prices by dealing direct with us, having for many years been chiefly engaged in the manufacture of Colliery, Mining, and Brickmaking Plants.

ESTABLISHED 1860.

HUDSWELL, CLARKE, AND CO., LEEDS.



LOCOMOTIVE TANK ENGINES

OF ALL SIZES AND ANY GAUGE OF RAILWAY.
OF GREATLY IMROVED CONSTRUCTION
FOR MAIN OR BRANCH RAILWAYS.
CONTRACTORS, IRONWORKS, COLLERIES.

SOLE MAKERS OF RODGERS' PATENT WROUGHT IRON PULLEYS.

ESTABLISHED 1825.

EDWIN LEWIS AND SONS,

Patent Tube Works, MONMORE GREEN and Britannia Boiler Tube Works, ETTINGSHALL,

WOLVERHAMPTON.

Lapwelded & Buttwelded Wrought-iron, Steel, or Homogeneous Tubes

COLLIERY OR MINING PURPOSE.

ALEX. WILSON & CO.,

VAUXHALL IRONWORKS,

LONDON, S.W.,

MANUFACTURERS OF



THE VAUXHALL DONKEY PUMPS.
THE EXCELSIOR DIRECT-ACTING
PUMPS.

Air Compressors.
Winding Engines.

HOISTING MACHINERY.

ILLUSTRATED AND PRICED CATALOGUES ON APPLICATION.

THE IRON AND COAL TRADES REVIEW.

The IRON AND COAL TRADES BEVIEW is extensively circulated amongst the Iron Producers, Manufacturers, and Consumers, Coalowners, &c., in all the iron and coal districts. It is, therefore, one of the leading organs for advertising every description of Iron Manufactures, Machinery, New Inventions, and all matters recating to the Iron Coal, Hardware, Engineering, and Metal Trades in general Officers of the Review: 342, Strand, W.C.

Ramittances payable to W. T. Pringle.

ROISETH'S NEW AND REVISED MAP FOR 1875,—
Size 40 by 56 inches, scale 3 miles to the inch. Handsomely engraved, colowed in counties, showing the Towns, Settlements, Rivers, Lakes, Railroads
Mining Districts, &c., throughout the Territory, and all the Government Survey
to date. Mounted on cloth, £2; half-mounted, £1 12s.; pocket form, £1.
Also, GENERIAL MINING-MAP OF UTAH, showing twenty-eight of the
principal Mining Districts adjacent to Salt Lake City, and location of the most
prominent mines. Price, pocket form, 6s.
Also, NEW MAP GF LITTLE AND BIG COTTONWOOD MINING DISTRICTS
showing the location of over Four Hundred Mines and Tunnel Sites, together
with the Mines Surveyed for United States Patent. Price, sheets, 6s.; pocke
form, 5s.
For sale, and supplied by—

TRUBNER and Co., 57 and 59 Ludgate Hill, London. B. A. M. FROISETH, Salt Lake City, Utah, U.S. PARIS EXHIBITION, 1878. GAINED THE GRAND PRIZE. THE TRIPLE AWARD. competition with all the World.

Gold Medal, Silver Medal, and Honourable Mention in

THE BLAKE-MARSDEN NEW PATENT IMPROVED STONE BREAKERS AND ORE CRUSHERS.

ORIGINAL PATENTEE AND ONLY MAKER.

ALSO PATENTEE AND ONLY

MAKER OF THE

NEW PATENT

FOR REDUCING TO AN IMPALPABLE POWDER, OR ANY DEGREE OF FINENESS REQUIRED,

GOLD QUARTZ, SILVER, COPPER, TIN, ZINC, LEAD, and ores of every description;

Also Cement, Barytes, Limestone, Chalk, Pyrites, Coprolite, &c., &c. These Machines are in successful operation in this country and abroad, and reference to users can be had on application.

PATENT REVERSIBLE CUBING and CRUSHING JAWS, IN FOUR SECTIONS,

WITH PATENT FACED BACKS, REQUIRING NO WHITE METAL IN FIXING. NEW PATENT CRUCIBLE CAST-STEEL CONNECTING

RODS.
NEW PATENT RENEWABLE TOGGLE CUSHIONS, &c.

OVER 4000 IN USE.

EXTRACT FROM TESTIMONIALS. PULVERISER.

PULVERISER.

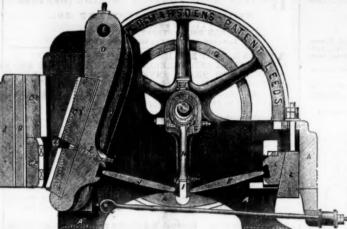
"I have great pleasure in bearing testimony to the merits and capabilities of your patent combined fine crusher and sleving apparatus. I have tried it on a variety of ores and minerals, and it puverizes them with equal success. You can put in a small paving stone, and bring it out like flour."

"The power required to drive it is very small, being from 4 to 5-horse, and the repairs are almost nil."

"I am sure the machine will be a success, and a great one, and there is any amount of demand for such a machine. We can work it with 20 lbs. of steam, and our engine, which is a 12-h.p., plays with the work, in fact we run the Stonebreaker and the Pulveriser both together with 35 lbs."

FLY-WHEELS ON BOTH SIDES.

DISENGAGING



FOR CATALOGUES, TESTIMONIALS, &c., APPLY TO THE SOLE MAKER,

ROAD METAL BROKEN EQUAL TO HAND, AT ONE-TENTH THE COST.

EXTRACTS FROM TESTIMONIALS.
STONEBERAKER.
"The 15 × 8 stonebreaker gives perfect satisfaction. It produces a more cubical stone than any others I have seen at work."
"Your 15 × 10 machine makes the best road metal I have ever seen put through a machine—in fact, comparing favourably with handbroken."

60

FIRST-CLASS GOLD AND SILVER MEDALS. DOPTED BY THE PRINCIPAL CORPORATIONS, CON-TRACTORS, MINING COMPANIES, &c., IN ALL PARTS OF THE WORLD.

broken."
"Your 10 × 7 crusher at the Aruba Gold Mines will crush 90 to 100 tons per 24 hours of the hardest gold quartz to 1 'size."
"Bome of your testimonials do not give your machines half their due. I have seen men hammering away on a big rock for a quarter of a day which your machine would reduce to the required size in a quarter of a minute. I would guarantee that your largest size machine would reduce more of the Cornish tin capels (which is the hardest rock of England) in a day than 200 men, and at 1-25th the cost."

GREATLY REDUCED PRICES ON APPLICATION.

MARSDEN, SOHO FOUNDRY, н. R. LEEDS.

TAND 249 .- ROYAL AGRICULTURAL SHOW, YORK, JULY 16 to 20-H. R. MARSDEN will EXHIBIT his LATEST PATENT FINE CRUSHER or PULVERIZER and STONE BREAKER, in full operation.

STEAM PUMPS

COLLIERY PURPOSES.

Specially adapted for foreing Water any height ALSO, FOR

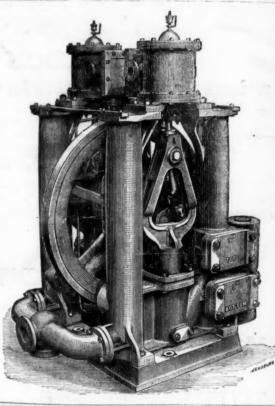
SINKING, FEEDING BOILERS AND STEAM FIRE ENGINES.

which he has made over 8000.

ALSO, HIS

PATENT CAM AND LEVER PUNCHING SHEARING MACHINES.

Works: Oldfield Road, Salford, Manchester.





By a special method of preparation this leather is made solid, perfectly close in exture, and impermeable to water; it has, therefore, all the qualifications essential for pump buckets, and is the most durable material of which they can be made. It may be had of all dealers in leather, and of—

HEPBURN AND GALE, TANNERS AND CURRIERS,

LEATHER MILL BAND AND HOSE PIPE MANUFACTURERS. LONG LANE, SOUTHWARK LONDON Prize Medals, 1851, 1855, 1878, for

MILL BA DS HOSE, AND LEATHER FOR MACHINERY PURPOSES.

Just published.

Just published.

THE NORTHWALES COAL FIELDS
Being a series of Diagrams showing the Depth, Thickness, and Local Names
of the Seams in the principal Collieries of the various districts, with Index, Geclogical Map, and horisontal sections across the Ruabon, Brymbo, Buck ey, and
Mostyn districts.
By JOHN BATES GREGORY and JESSE PRICE,
of Hope Station, near Moid, Plintahire.

Price: Mounted on holland, coloured and vannished, and fixed on mahogany
rollers, 30s. each; or in book form, 12×9, mounted and coloured, 25s. each.
May be obtained, by order, of all Bookselles or direct from the MINING
OURNAL Office, 3c, Picet-street. London, E.O., upon remittance of Post Office
Order for the amount.

THE MINING RECORD, Only \$5:00 a year.

Is the ONLY PAPER in the United States that gives FULL LATEST ACCOUNT from all the GREAT GOLD, SILVER, IRON, and COAL MINES of AMERICA.

ORDERS EXECUTED FOR MINING STOCKS. Information free

ALEX. ROBT. CHISOLM, Proprietor.

London Office—H. CARTER, Manager, 36, King William-street, London.



PATENT WIRE TRAMWAYS

Of all descriptions on the Single and Double-Rope Systems; Self-Acting, and Driven by Steam, Water, or Horse Power.

Carrying from 50 to 1,000 tons per day 50 miles erected in all parts of the rld. For Particulars and Estima W. T. H. CARRINGTON, 9, and 11, Fenchurch Avenue, London, Removed from 76, Cheapside, E.C.

ENGINEER AND MANAGER TO THE OWNERS OF THE PATENTS FOR WIRE ROPE TRANSPORT

WOOD ASTON AND CO., STOURBRIDGE

(WORKS AND OFFICES ADJOINING CRADLEY STATION), Manufacturers of

CRANE, INCLINE, AND PIT CHAINS.

Also CHAIN CABLES, ANCHORS, and RIGGING CHAINS, IRON and STEEL SHOVELS, SPADES FORKS, ANVILS, VICES, SCYTHES, HAY and CHAFF KNIVES, PICKS, HAMMERS, NAILS, RAILWAY and MINING TOOLS, FRYING PANS, BOWLS, LADLES, &c., &c. Crab Winches, Pulley and Snatch Blocks, Screw and Lifting Jacks, Ship Knees, Forgings, and Use Iron of all descriptions

WELDED STEEL CHAINS { FOR CRANES, INCLINES, MINES, &c.,